

ADDITIONAL NOTES ON THE ERIOCAULACEAE. XCVI

Harold N. Moldenke

*PAEPALANTHUS SCOPULIFER* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 148. 1976; Mold., *Phytol. Mem.* 2: 158 & 618. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 98--99. 1928 (Id, N, W).

*PAEPALANTHUS SCOPULORUM* Mold.

Additional bibliography: Mold., *Phytologia* 33: 148--149 (1976) and 35: 120. 1977; Mold., *Phytol. Mem.* 2: 118 & 618. 1980; Mold., *Phytologia* 50: 245 & 246. 1982.

Recent collectors have found this plant growing on open rocky plateaus, in marshes, and "along moist ledges at base of salto", at 640--2420 m. altitude, often "locally frequent", flowering and fruiting in February, August, and October. Tillett and his associates describe it as an herb, the leaves thin, slightly brittle, dark- or mid-green, the "bracts at base of and scapes light-green", the inflorescence bracts brownish or blackish, the flowers white, and have found it "locally abundant in grass on hillsides of sandstone talus in mist from falls covered with dense 1 m. growth of grass, herbs and some low shrubs" and "locally frequent in wet areas, scrub and low (8--10 m.) forest: in Guyana.

Material of this species has been misidentified and distributed in some herbaria as the very similar *P. tatei* Mold. and the Steyermark 75491 collection, cited below, was erroneously so reported by me in a previous publication. Steyermark and his associates say of their nos. 115578 & 115718 "cf. also *P. perplexans* and *P. roraimensis*" which are likewise obviously closely related taxa. The Maguire & al. 31718, cited below, was also previously erroneously regarded by me as *P. tatei*.

Additional citations: VENEZUELA: Amazonas: Maguire, Phelps, Hitchcock, & Budowski 31718 (F, Gl, K, N, Ve, W--2046544); Steyermark, Espinosa, McDiarmid, & Brewer-Carías 115718 (Ld), 115578 (Ld). Bolívar: B. Maguire 33045 (W--2168895); Steyermark 59914 (W--1901801--isotype), 75491 (Ss, W--2407755). GUYANA: Tillett & Tillett 45751 (N); Tillett, Tillett, & Boyan 45071 (N).

*PAEPALANTHUS SCOPULORUM* var. *AUYANTEPUIENSIS* Mold.

Additional bibliography: Mold., *Phytologia* 33: 149. 1976; Mold., *Phytol. Mem.* 2: 118 & 618. 1980.

Recent collectors describe this plant as having elongated stems, flaccid grass-green leaves, and black involucre, and refer to it as locally frequent at 1895--1910 m. altitude, in flower in February. The Steyermark & Wurdack collection, cited

below, was previously incorrectly identified as *P. tatei* Mold. or as typical *P. scopulorum* Mold.

Additional citations: VENEZUELA: Bolívar: Steyermark & Wurdack 1080 (N, W--2168531).

*PAEPALANTHUS SCYTOPHYLLUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 33: 149. 1976; Mold., *Phytol. Mem.* 2: 158, 427, & 618. 1980.

*PAEPALANTHUS SEDOIDES* Körn.

Additional bibliography: Mold., *Phytologia* 33: 149--150. 1976; Mold., *Phytol. Mem.* 2: 158, 398, & 618. 1980.

*PAEPALANTHUS SELLOWIANUS* Körn.

Additional bibliography: Mold., *Phytologia* 42: 33. 1979; Mold., *Phytol. Mem.* 2: 158, 425, 427, & 618. 1980.

*PAEPALANTHUS SENAEANUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 39 & 53. 1977; Mold., *Phytol. Mem.* 2: 158 & 618. 1980.

Additional citations: BRAZIL: Minas Gerais: A. Silveira 368 [Herb. Marie-Victorin 15832] (Ld--photo). MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Serr. Min. 61--62. 1908 (W); Alv. Silv., Fl. Mont. 1: pl. 169. 1928. (Ld, N, W).

*PAEPALANTHUS SERICEUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 152--153. 1976; Mold., *Phytol. Mem.* 2: 158 & 618. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 84--85, pl. 50. 1928 (Ld, N, W).

*PAEPALANTHUS SERICIFOLIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 153. 1976; Mold., *Phytol. Mem.* 2: 158 & 618. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Serr. Min. 56. 1908 (W).

*PAEPALANTHUS SERRALAPENSIS* Mold.

Additional bibliography: Mold., *Phytologia* 33: 183. 1976; Angely, S. Am. Bot. Bibl. 2: 669. 1980; Mold., *Phytol. Mem.* 2: 158 & 618. 1980.

Additional citations: MOUNTED CLIPPINGS: Bong., Ess. Monog. Erioc. 31. 1831 (W); Kunth, Enum. Pl. 3: 576. 1841 (N, W).

*PAEPALANTHUS SERRINHENSIS* Alv. Sil.

Additional bibliography: Mold., *Phytologia* 33: 183. 1976; Mold., *Phytol. Mem.* 2: 158, 427, & 618. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1, 44--46, pl. 23. 1928 (Ld, N, W).

*PAEPALANTHUS SESLERIOIDES* Griseb.

Additional bibliography: Mold., *Phytologia* 37: 53--54. 1977;

Mold., Biol. Abstr. 63: 3041. 1977; Hocking, Excerpt. Bot. A.31: 16. 1978; Mold., Phytol. Mem. 2: 92, 92, 397, 618, & 619. 1980; Mold., Phytologia 54: 436. 1983.

The Wright collection, cited below, is a mixture with *P. lamarckii* Kunth.

Additional citations: CUBA: Pinar del Río: *C. Wright* 3234 in part (W--46429--isotype).

*PAEPALANTHUS SESLERIOIDES* var. *CARABIAE* Mold.

Additional bibliography: Mold., Phytologia 37: 54. 1977; Hocking, Excerpt. Bot. A.31: 16. 1978; Mold., Phytol. Mem. 2: 92 & 619. 1980.

*PAEPALANTHUS SESLERIOIDES* var. *WILSONII* Mold.

Additional bibliography: Mold., Phytologia 37: 54. 1977; Hocking, Excerpt. Bot. A.31: 16. 1978; Mold., Phytol. Mem. 2: 90, 92, & 619. 1980.

Additional citations: ISLA DE PINOS: *Killip* 45363 (Mi).

*PAEPALANTHUS SESSILIFLORUS* Mart.

Additional bibliography: Mold., Phytologia 42: 33. 1979; Mold., Phytol. Mem. 2: 118, 159, 403, & 619. 1980.

Recent collectors refer to this plant as a minute heliophile herb, growing in white sand "em restinga arbustiva e aberto" in full exposure to the sun, the flower-heads white, and have found it in anthesis in April and in both flower and fruit in October.

Additional citations: BRAZIL: Amazonas: *Madison, Kennedy, Monteiro, & Braga* 6226 (N). Rio de Janeiro: *Araujo & Maciel* 3030 [Herb. FEEMA 14861] (Ld).

*PAEPALANTHUS SESSILIFLORUS* var. *VENEZUELENSIS* Mold.

Additional bibliography: Mold., Phytologia 42: 33. 1979; Mold., Phytol. Mem. 2: 118 & 619. 1980.

Additional citations: VENEZUELA: Bolívar: *Steyermark, Steyermark, Wurdack, Wurdack, & Wiehler* 106609 (W--2926075--isotype).

*PAEPALANTHUS SESSILIS* H. Lecomte

Additional bibliography: Mold., Phytologia 33: 187. 1976; Mold., Phytol. Mem. 2: 217 & 619. 1980.

*PAEPALANTHUS SICAEFOLIUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 187 (1976) and 35: 263. 1977; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Additional citations: BRAZIL: Minas Gerais: *Irwin, Santos, Souza, & Fonseca* 22302 (W--2582560A). MOUNTED ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: pl. 148. 1928 (Ld).

*PAEPALANTHUS SILVEIRAE* Ruhl.

Additional bibliography: Mold., Phytologia 33: 187--188. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

*PAEPALANTHUS SIMILIS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 188. 1976; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 199--200, pl. 131. 1928 (Ld, N, W).

*PAEPALANTHUS SINGULARIUS* Mold.

Synonymy: *Paepalanthus singularis* Mold., in herb.

Additional bibliography: Mold., *Phytologia* 37: 54. 1977; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

Recent collectors have encountered this plant in "hot open places in white sand with low restinga vegetation surrounded by mata alta on terra firme" and on "campo aberta", in both flower and fruit in June.

Additional citations: BRAZIL: Pará: *Campbell, Ongley, Ramos, Monteiro, & Nelson P.22542* (N, W--2935297); *Cid, Ramos, & Mota 1217* [Herb. Inst. Nac. Pesq. Amaz. 94436] (Ld, N); *Davidson & Martinelli CD.10623* (Ld).

*PAEPALANTHUS SPATHULATUS* Körn.

Additional bibliography: Mold., *Phytologia* 33: 188--189. 1976; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

*PAEPALANTHUS SPECIOSUS* (Bong.) Körn.

Additional synonymy: *Paepalanthus speciosus* Bong. apud Ruhl. in *Wettstein, Denkschr. K. Akad. Wiss. Wien Math.-Nat.* 79: 87. 1908.

Additional bibliography: Ruhl. in *Wettstein, Denkschr. K. Akad. Wiss. Wien Math.-Nat.* 79: 87. 1908; *Latorre, Ortega, & Inca, Cienc. Naturaleza* 18: 62. 1977; Mold., *Phytologia* 42: 33. 1979; Mold., *Phytol. Mem.* 2: 159, 424, 425, 427, & 619. 1980; Mold., *Phytologia* 52: 414 (1983) and 54: 237. 1983.

Recent collectors have found this plant growing in periodically burned cerrado and in wet clay-sand soil of cerrado in an area of capoeira, in both flower and fruit in August and October. They describe it as an herb, 1--1.5 m. tall, with cream-colored flowers and list the vernacular name "vassourao".

Ruhland (1908) cites an unnumbered Wacket collection from the border of Minas Gerais and São Paulo, Brazil. Latorre and his associates (1977) cite *Krukoff 2052* from Amazonian Brazil. They erroneously give "R. Kruk" for B. A. Krukoff and "(Bong.) Koene" for "(Bong.) Körn."

Additional citations: BRAZIL: Distrito Federal: *Héring 17388* (N); *Heringer, Paula, Mendonça, & Salles 86* (N). Goiás: *W. R. Anderson 6212* (W--2755479). Mato Grosso: *Macedo, Duarte, & Antonia 1449* (N); *Murça Pires & Santos 16333* (N). MOUNTED CLIPPINGS: *Kunth, Enum. Pl.* 3: 579. 1841 (N, W).

*PAEPALANTHUS SPECIOSUS* var. *ANGUSTIFOLIUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 54. 1977; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

Recent collectors have encountered this plant in cerrado and cerrado brejoso.

Additional citations: BRAZIL: Distrito Federal: *Héringer 16876* (N); *Héringer, Figueiras, Mendonça, Pereira, Salles, & Silva 474* (N).

*PAEPALANTHUS SPECIOSUS* var. *ATTENUATUS* Mold.

Additional bibliography: Mold., *Phytologia* 42: 33. 1979; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

Recent collectors have found this plant in flower in December, growing at 3300 feet altitude.

Additional citations: BRAZIL: Distrito Federal: *Héringer, Paula, Mendonça, & Salles 483* (N). Goiás: *Maguire, Maguire, & Murça Pires 44790* (Ld, N).

*PAEPALANTHUS SPECIOSUS* f. *CALVESENS* Mold.

Additional bibliography: Mold., *Phytologia* 42: 33. 1979; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

*PAEPALANTHUS SPECIOSUS* var. *CHLOROCEPHALUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 195. 1976; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

*PAEPALANTHUS SPECIOSUS* var. *GLABER* Ruhl.

Additional bibliography: Mold., *Phytologia* 33: 191--197. 1976; Mold., *Phytol. Mem.* 2: 159, 424, 425, & 619. 1980.

Recent collectors refer to this plant as "white-flowered shrublets or woody herbs", 1--1.5 m. tall, and have encountered it in swamps, in cerrado, and on campo rupestre, at 1100 m. altitude, in flower in April and May, and in fruit in May.

Additional citations: BRAZIL: Distrito Federal: *Pereira 236* (N). Goiás: *W. R. Anderson 6536* (W--2755480); *Hatschbach 43081* (Ld, W--2931955); *Ramamoorthy 521* (E--2904853).

*PAEPALANTHUS SPECIOSUS* var. *GOYAZENSIS* Mold., *Phytologia* 52: 414. 1983.

Bibliography: Mold., *Phytologia* 52: 414 (1983) and 54: 237. 1983.

*Héringer* and his associates describe this plant as a subshrub, with white inflorescences, and encountered it on campo rupestre, in flower in May. The Dawson collection, cited below, was previously regarded by me as representing var. *glaber* Ruhl.

Citations: BRAZIL: Distrito Federal: *Héringer, Figueiras, Mendonça, Pereira, Salles, & Silva 4602* (N). Goiás: *E. Y. Dawson 14271* (Ld--type).

*PAEPALANTHUS SPECIOSUS* var. *KOERNICKEI* Ruhl.

Additional bibliography: Mold., *Phytologia* 33: 191 & 197. 1976; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

*PAEPALANTHUS SPECIOSUS* var. *PULVERULENTUS* Mold.

Additional bibliography: Mold., *Phytologia* 33: 192 & 197--198.

1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Recent collectors describe this plant as 60 cm. tall, with white inflorescence heads, and have found it growing on campo cerrado and in cerrado on periodically burned campo, at 180 m. altitude, flowering and fruiting in June.

Additional citations: BRAZIL: Goiás: *Murça Pires & Santos* 16214 (N, N). Pará: *Rosário* 76 (N, N).

*PAEPALANTHUS SPHAEROCEPHALUS* Ruhl.

Additional bibliography: Mold., Phytologia 33: 198 (1976) and 34: 259. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 75. 1980.

Recent collectors describe this plant as a heliophytic rosette herb, 10 cm. tall, the flower-heads white. They have encountered it in wet sandy soil, on campo rupestre, and in "marshes in a region of sandstone, conglomerate, metamorphic and quartzite rock outcrops with associated scrubby vegetation with damp flushes and grassland and marsh in some areas", at 1000 m. altitude, flowering and fruiting in March and July.

Additional citations: BRAZIL: Bahia: *Harley, Mayo, Storr, Santos, & Pinheiro* in *Harley* 19667 (Ld, N, W--2936318); *Mori, King, Santos, & Hage* 12399 (Ld, W--2854263), 12407 (Ld, W--2854258). Minas Gerais: *Hatschbach* 41536 (Ld).

*PAEPALANTHUS SPHAERULIFER* Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 199. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 103--104, pl. 64. 1928 (Ld, N, W).

*PAEPALANTHUS SPIRALIFOLIUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 199. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 178--179, pl. 115. 1928 (Ld, N, W).

*PAEPALANTHUS SPIRIFER* Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 199--200. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 195--197, pl. 129. 1928 (Ld, N, W).

*PAEPALANTHUS SPIROPHORUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 200. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 175--176, pl. 113. 1928 (Ld, N, W).

*PAEPALANTHUS SPIXIANUS* Mart.

Additional bibliography: Mold., Phytologia 33: 200--201 (1976) and 35: 262, 263, & 279. 1977; Mold., Phytol. Mem. 2: 159, 401, & 619. 1980.

*PAEPALANTHUS SQUAMULIFERUS* Mold.

Additional synonymy: *Leiothrix squamuliferus* Mold., Phytol. Mem. 2: 419 in syn. 1980.

Additional bibliography: Mold., Phytologia 33: 201--202 (1976) and 35: 304. 1977; Mold., Phytol. Mem. 2: 118, 419, & 619. 1980.

Additional citations: VENEZUELA: Bolívar: *Steyermark* 59777 (W--1901796--isotype).

*PAEPALANTHUS STEGOLEPOIDES* Mold.

Additional bibliography: Mold., Phytologia 33: 271. 1976; Mold., Phytol. Mem. 2: 118, 159, & 619. 1980; Mold., Phytologia 50: 245 & 418. 1982.

Recent collectors describe this plant as a frequent herb, to 1.5 m. tall, forming tufts, the light-green leaves spreading-ascending, the inflorescence heads gray-white, and the flowers white. They have found it growing in open boggy savannas and "on open slopes at base of cliffs, at 1500--3000 m. altitude, flowering and fruiting in February, August, and December.

Additional citations: VENEZUELA: Amazonas: *Steyermark, Brewer-Carias, & Liesner* 124391 (N). 124533 (N). Bolívar: *Moore, Ambrose, Dietz, & Pfister* 9813 (Ba, N); *Steyermark & Wurdack* 491 (W--2407721); *Wurdack* 34315 (W--2168927--isotype).

*PAEPALANTHUS STEGOLEPOIDES* var. *ACUTALIS* Mold.

Additional bibliography: Mold., Phytologia 33: 271. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Additional citations: BRAZIL: Amazonas: *Maguire, Murca Pires, & Maguire* 60509 (N--isotype).

*PAEPALANTHUS STENOLEPIS* Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 271. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 43--44, pl. 22. 1928 (Ld, N, W).

*PAEPALANTHUS STEPHANOPHORUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 271--272. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 40--42, pl. 20. 1928 (Ld, N, W).

*PAEPALANTHUS STEREOPHYLLUS* Ruhl.

Synonymy: *Paepalanthus stereosphyllus* Ruhl. ex Mold., Phytol. Mem. 2: 619 sphaalm. 1980.

Additional bibliography: Mold., Phytologia 33: 272. 1976; Mold., Phytol. Mem. 2: 159, 428, & 619. 1980.

*PAEPALANTHUS STEYERMARKII* Mold.

Additional bibliography: Mold., Phytologia 42: 33--34. 1979; Mold., Phytol. Mem. 2: 118 & 619. 1980; Mold., Phytologia 55: 53. 1984.

Recent collectors refer to this plant as an herb growing in globose clumps, the leaves pale-green, and the inflorescence heads gray. They have found it growing on dry savannas, at 1400 m. altitude, both in flower and fruit in November.

The *Davidse 4681*, distributed as *P. steyermarkii* and so cited in a previous publication in this series, actually is *P. savannarum* var. *glabrescens* (Mold.) Mold.

Additional citations: VENEZUELA: Bolivar: *Maas & Steyermark 5366* (Ut--390372B); *B. Maguire 33241* (W--2168904); *J. A. Steyermark 59369* (W--1901817--isotype), *111284* (W--2814186); *Steyermark & Aristeguieta 64* (W--2430089); *Steyermark, Smith, Smith, Dunsterville, & Dunsterville 105473* (W--2925998).

*PAEPALANTHUS STRIATUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 33: 273 & 274. 1976; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

*PAEPALANTHUS STRICTUS* Körn.

Additional bibliography: Mold., *Phytologia* 33: 274. 1976; Mold., *Phytol. Mem.* 2: 159 & 619. 1980.

Additional citations: BRAZIL: Minas Gerais: *Maguire, Mendes Magalhães, & Maguire 49223* (W--2435296).

*PAEPALANTHUS STUEBELIANUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 42: 34. 1979; Mold., *Phytol. Mem.* 2: 134 & 619. 1980; Mold., *Phytologia* 54: 235. 1983.

Recent collectors describe this plant as forming cushions, with the inflorescences white [or "heads brown", probably in fruit] and report it as "common in sandy soil on sandstone outcrops with sterile white sand overlying black sand, with *Ericaceae*, *Weinmannia*, and melastomes abundant", at 2800--2900 m. altitude, in flower and fruit in March, July, and September.

Additional citations: PERU: Amazonas: *Boeke 2036* (W--2927523), *2133* (N, N); *Hutchison & Wright 5548* (W--2509032); *Luteyn & Lebron-Luteyn 5526* (N, W--2915260). Piura: *Sagástegui A., López, & Mestacero 10225* (Ld).

*PAEPALANTHUS SUBCAULESCENS* N. E. Br.

Additional bibliography: Knuth, *Feddes Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 180--181. 1927; Mold., *Phytologia* 35: 33--34. 1976; Mold., *Biol. Abstr.* 63: 3041. 1977; Mold., *Phytol. Mem.* 2: 118, 122, & 619. 1980.

Knuth (1927) cites *Connell & Quelch 300* from Roraima, Venezuela. Actually the first-mentioned of these collectors is F. McConnell.

Additional citations: MOUNTED CLIPPINGS: N. E. Br., *Trans. Linn. Soc. Lond. Bot.*, ser. 2, 6: 71. 1901 (W).

*PAEPALANTHUS SUBFALCATUS* Ruhl.

Additional bibliography: Hocking, *Excerpt. Bot. A.* 23: 388. 1974; Mold., *Phytologia* 35: 34--35. 1976; Mold., *Biol. Abstr.* 63:



3041. 1977; Mold., Phytol. Mem. 2: 159, 428, & 619. 1980.

Additional citations: BRAZIL: Minas Gerais: Irwin, Santos, Souza, & Fonseca 23355 (W--2582551A).

*PAEPALANTHUS SUBFALCATUS* var. *VILLOSUS* Mold.

Additional bibliography: Hocking, Excerpt. Bot. A.23: 388. 1974; Mold., Phytologia 35: 35. 1976; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Additional citations: BRAZIL: Minas Gerais: Irwin, Fonseca, Souza, Santos, & Ramos 28201 (W--2709898-- isotype).

*PAEPALANTHUS SUBTILIS* Miq.

Additional bibliography: Knuth, Feddes Repert. Spec. Nov. Beih. 43: [Init. Fl. Venez.] 181. 1927; Hocking, Excerpt. Bot. A.31: 17. 1978; Mold., Phytologia 42: 31 & 34. 1979; Mold., Phytol. Mem. 2: 118, 122, 124, 159, 428, & 619. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 75. 1980; Mold., Phytologia 50: 245 & 248 (1982) and 54: 80 & 151. 1983.

Recent collectors describe this plant as an herb, 5--10 cm. tall, with gray, grayish-white, or whitish inflorescence heads and have found it growing "locally abundant" in disturbed areas of sandy savannas, in wet sandy soil of laja granítica, in igapo, on open white-sand roadbanks, in areas of "sandstone, metamorphic and quartzite rock outcrops with associated marsh and damp flushes", and on "rocky riversides with rapids, riverine vegetation, cerra-do with sandstone outcrops and some grassland areas subject to flooding", at 75--1500 m. altitude, flowering and fruiting in February, March, June, and July. Goodland reports it from "grassland with scattered trees, the dominants being Curatella, Byrsonima, Trachypogon, & Fimbristylis". A photograph of the plant in situ is said to accompany Plowman & al. 9560.

The Egler 47650, cited by me in a previous paper as *P. subtilis*, is a mixture of *P. leucocyaneus* var. *egleri* Mold. and *Syngonanthus glandulosus* f. *epapillosus* Mold.

Knuth (1927) cites "Connell" [=McConnell] & Quelch 312 from Roraima and Gaillard 95 from Bolívar, Venezuela.

Material of *P. subtilis* has been misidentified and distributed in some herbaria as *Lachnocaulon* sp. On the other hand, the Steyermark & Pruski 121066, distributed as *P. subtilis*, actually is *P. aristatus* Mold.

Additional citations: VENEZUELA: Amazonas: O. Huber 1085 (Ld), 2144 (Ld), 4652 (Ld), 5601 (Ld), 5621 (Ld); Huber & Tillett 937 (Ld); Molina & Barkley 18V186 (W--1999487). Bolívar: J. A. Steyermark 89700 (W--2486399). GUYANA: Goodland 282 (W--2548120); Maguire & Fanshawe 23000 (W--1907815). SURINAM: Maguire 23984 (W--1907852). BRAZIL: Amapá: Maguire, Murca Pires, & Maguire 47129 (W--2435345). Amazonas: Alencar 43 (Ld, N, W--2932763); Poole 1616 (Ld, N); Prance, Steward, Ramos, Fidalgo, & Prance 20201 (N, W--2935295); Schmidt & Pabst 9684 [Herb. Brad. 70039] (Ld). Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19577 (Ld, N, W--2936333), 20127 (Ld, N). Pará: Plowman,

Rosa, & Rosario 9784 (Ld, N).

*PAEPALANTHUS SUBTILIS* var. *HIRSUTUS* Ruhl.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 113. 1977; Mold., Phytol. Mem. 2: 124, 159, 428, & 619. 1980; Mold., Phytologia 50: 245. 1982.

Additional citations: VENEZUELA: Amazonas: Huber & Tillett 2851 (Ld).

*PAEPALANTHUS SUBTILIS* var. *PUBERULUS* Ruhl.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 113--114. 1977; Mold., Phytol. Mem. 2: 159 & 619. 1980; Mold., Phytologia 50: 248. 1982.

Plowman and his associates encountered this plant on open white-sand campina and photographed it in situ.

Additional citations: BRAZIL: Pará: Plowman, Rosa, & Rosario 9560 (Ld, N, W--2967824).

*PAEPALANTHUS SUCCISUS* Mart.

Additional synonymy: *Paepalanthus succisus* "Mart. ex Koern." apud Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 76. 1980.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 114. 1977; Mold., Phytol. Mem. 2: 159, 428, 619, & 628. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 76. 1980; Mold., Phytologia 50: 263. 1982.

Recent collectors describe this species as a rosette herb, to 25 cm. tall, the leaves gray-green, the involucrel bractlets dark, and the florets white. They have found it growing on campo rupestre and in marshes in a region of "sandstone, metamorphic and quartzite rock outcrops associates with marsh and damp flushes", at 1000--1500 m. altitude, in flower in February and July.

Additional citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19551 (Ld, N, W--2936326); Mori, King, Santos, & Høge 12404 (Ld, W--2854259).

*PAEPALANTHUS SUFFRUTICANS* Ruhl.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 114--115. 1977; Monteiro, Giu-lietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo 7: 44. 1979; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Recent collectors have encountered this plant at 1500--1700 m. altitude, flowering in November, and refer to it as an herb, 60 cm. tall, with white flowers.

Additional citations: BRAZIL: Minas Gerais: Cruz, Shepherd, & al. 6475 (W--2883679).

*PAEPALANTHUS SUFFRUTICANS* var. *ANGUSTIFOLIUS* Alv. Silv.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 115. 1977; Mold., Phytol. Mem. 2: 159 & 619. 1980.

*PAEPALANTHUS SUPERBUS* Ruhl.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 115--116. 1977; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Additional citations: BRAZIL: Minas Gerais: A. Silveira 373 (Ld--photo). MOUNTED ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: pl. 168. 1928 (Ld, N, W).

*PAEPALANTHUS SUPINUS* Körn.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 116--117. 1977; Mold., Phytol. Mem. 2: 159, 175, & 619. 1980.

Additional citations: BRAZIL: Mato Grosso: W. R. Anderson 9900 (W--2755481). MOUNTED CLIPPINGS: Körn. in Mart., Fl. Bras. 3 (1): 352 & 507. 1863 (N, W).

*PAEPALANTHUS SYCHNOPHYLLUS* Ruhl.

Additional bibliography: Mold., Phytologia 42: 34. 1979; Mold., Phytol. Mem. 2: 159 & 619. 1980; Mold., Phytologia 55: 47. 1984.

The Sucre & al. 5312 [Herb. Jard. Bot. Rio Jan. 175198], distributed in some herbaria as *P. sychnophyllus*, actually is *P. ramosus* (Wikstr.) Kunth.

*PAEPALANTHUS SYNGONANTHOIDES* Alv. Silv.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 118--119. 1977; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Serr. Min. 67. 1908 (W); Alv. Silv., Fl. Mont. 1: pl. 17 II. 1928 (Ld, N, W).

*PAEPALANTHUS TATEI* Mold.

Additional bibliography: Mold., Phytologia 42: 34. 1979; Mold., Phytol. Mem. 2: 110, 118, 122, 124, 357, & 619. 1980.

Recent collectors have encountered this plant in rock crevices at the edges of rivers, on forested slopes of sandstone substrate, on moist sandstone slopes, along rivulets on wet sandstone, in sandy soil on shaded wet banks in primary wet forests, at the edges of streams in primary forested areas (the forest evergreen) with soils tending to be sandy and derived from schist or gneiss rock, and "common" in wet dwarf forests, at 600--1310 m. altitude, in flower in July and November, and in both flower and fruit in March. They describe the inflorescence as "grayish" or the "fruiting-heads jet-black".

The Bogner specimen cited below was grown from seeds collected on Mt. Auyantepui, Venezuela.

The Maguire, Phelps, Hitchcock, & Budowski 31718, Steyermark 75491, and Steyermark, Espinosa, McDiarmid, & Brewer-Carías 115718, distributed and/or cited by me previously as *P. tatei*, are now believed, instead, to represent the closely related *P. scopulorum* Mold., while Steyermark & Wurdack 1080 is *P. scopulorum* var. *ayuantepuiensis* Mold.

Additional citations: VENEZUELA: Amazonas: Maguire, Cowan, & Wurdack 29631 (W--2046480); Maguire & Maguire 35020 (W--2168937), 35021 (W--2168938), 35208 (W--2168942); Maguire & Politi 27343 (W--2046426), 27702 (W--2046443). Bolívar: Luteyn, Lebrón-Luteyn, & Steyermark 6262 (N, W--2939058); J. A. Steyermark 75504 (W--2407756), 75998 (W--2407781), 90337 (W--2430216), 93450 (W--2584114); Steyermark & Maas 123730 (Lc); Steyermark & Nilsson 723 (W--2400064); Steyermark & Wurdack 1123 (W--2168532). Táchira: Liesner & González 10336 (Ld); Liesner, González, & Smith 9598 (Ld, N); Steyermark & Liesner 118877 (Ld), 118926 (Ld), 119030 (Ld); Steyermark, Liesner, & Gonzalez 119863 (Ld). GUYANA: Maguire & Fanshawe 32538 (W--2168884). SURINAM: Maguire 24241 (W--1907835), 24670 (W--1907841), 24832 (W--1907845); Maguire, Schulz, Soderstrom, & Holmgren 54203 (W--2514872). CULTIVATED: Germany: Bogner 170/75 (Ld).

*PAEPALANTHUS TENUICAULIS* Alv. Silv.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 121. 1977; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 113--115, pl. 66, fig. 2. 1928 (Ld, N, W).

*PAEPALANTHUS TESSMANNII* Mold.

Additional bibliography: "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 37: 54--55. 1977; Mold., Phytol. Mem. 2: 159 & 619. 1980.

Hatschbach encountered this plant in brejo, in flower in December.

Additional citations: BRAZIL: Paraná: Hatschbach 42658 (Ld); Reitz & Klein 17457 (W--2548328).

*PAEPALANTHUS TORTILIS* (Bong.) Mart.

Additional synonymy: *Paepalanthus tortilis* (Bong.) "Mart. ex Koern." apud Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 76. 1980. *Paepalanthus tortilis* (Bong.) Ruhl. ex Mold., Phytologia 54: 244 in syn. 1983.

Additional bibliography: Knuth, Feddes Repert. Spec. Nov. Beih. 43: [Init. Fl. Venez.] 181. 1927; Mold., Phytologia 42: 34--35. 1979; Mold., Phytol. Mem. 2: 110, 118, 159, 404, 426, 428, 619, & 628. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 76. 1980; Mold., Phytologia 50: 263 (1982) and 54: 128 & 244. 1983.

Recent collectors describe this plant as a small heliophytic herb, 12--15 cm. tall, the leaves bright- or light-green, the sheaths "paler on the lower surface", the flower-heads white, and the involucre bractlets "black-gray with white spots" [tufts of hair?]. They have found it growing in caatinga, in "mixed restinga, mainly high restinga on drier ground with areas of normally wet sedge meadow [brejo]", in wet sand and in shallow pools in a region of sandstone rocks and open scrub on rocky hillsides, in wet places with *Sphagnum*, in wet sandy soil, and "in flush by

roadside between rocks in area of sandstone rocks intersected by small streams with some disturbed areas by roadsides", at 500--1180 m. altitude, in both flower and fruit in January, February, April, and July.

The *Maas & Carauta 3148*, cited below, is a mixture with *Leiothrix dielsii* Ruhl. and it is very possible that the description given on the label (see above) really applies only to that (major) part of the collection. Surely on herbarium sheets the inflorescence heads of *P. tortilis* appear to be almost black.

Additional citations: BRAZIL: Bahia: *Harley, Mayo, Storr, Santos, & Pinheiro in Harley 18052* (Ld, N, W--2936331), 18691 (Ld, N, W--2936328), 18725 (Ld, N, W--2936327); *Harley, Renvoize, Erskine, Brighton, & Pinheiro in Harley 15957* (W--2771332); *Hatschbach & Guimaraes 42414* (Ld). Rio de Janeiro: *Araujo & Maciel 4019* [Herb. FEEMA 14859] (Ld); *Maas & Carauta 3148* in part (Ut--355112B); *L. B. Smith 6590* (W--2120188); *Sucra, Graziela, Ichaso, & Carvalho 175201* (W--2948091); *Ule 868* (W--2699215). MOUNTED CLIPPINGS: *Bong., Ess. Monog. Erioc. 24. 1831* (N, W); *Kunth, Enum. Pl. 3: 502--503 & 572. 1841* (N, W); *A. St.-Hil., Voy. Dist. Diam. 1: 392. 1833* (N, W).

*PAEPALANTHUS TORTILIS* var. *GLABERRIMUS* Mart. & Mold.

Additional bibliography: *Mold., Biol. Abstr. 64: 4787. 1977; Mold., Phytologia 37: 55. 1977; Mold., Phytol. Mem. 2: 159, 404, & 619. 1980.*

Additional citations: BRAZIL: Rio de Janeiro: *Araujo 3297* [Herb. FEEMA 15489] (Ld).

*PAEPALANTHUS TORTILIS* var. *MINOR* Mold.

Additional bibliography: "M. P. B." [Mold.], *Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 37: 55. 1977; Mold., Phytol. Mem. 2: 159 & 619. 1980.*

*PAEPALANTHUS TRIANGULARIS* (L.) Körn.

Additional & emended bibliography: *J. F. Gmel. in L., Syst. Nat., ed. 13, imp. 1, 2: 206. 1791; Savage, Cat. Linn. Herb. Lond. 21. 1945; "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 127--129. 1977; Mold., Phytol. Mem. 2: 159, 432, & 619. 1980.*

*PAEPALANTHUS TRICHOLEPIS* Alv. Silv.

Additional bibliography: "M. P. B." [Mold.], *Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 129--130. 1977; Mold., Phytol. Mem. 2: 159, 428, & 619. 1980.*

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: *Alv. Silv., Fl. Mont. 1: 32--33, pl. 14. 1928* (Ld, N, W).

*PAEPALANTHUS TRICHOPEPLUS* Alv. Silv.

Additional bibliography: "M. P. B." [Mold.], *Biol. Abstr. 63: 6594. 1977; Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 252. 1977; Hocking, Excerpt. Bot. A.31: 17. 1978; Mold., Phytol. Mem. 2: 159 & 620. 1980.*

Additional citations: BRAZIL: Minas Gerais: *Irwin, Maxwell, & Wasshausen 20075* (W--2598326), *20076* (W--2569053A). MOUNTED CLIPPINGS & ILLUSTRATIONS: *Alv. Silv., Fl. Mont. 1: 151--152, pl. 95. 1928* (Ld, N, W).

*PAEPALANTHUS TRICHOPETALUS* Körn.

Additional bibliography: *Domin, Ann. Jard. Bot. Buitenz. 24 [ser. 2, 9]: 248. 1911; "M. P. B." [Mold.], Biol. Abstr. 63: 6594. 1977; Mold., Phytologia 35: 130--131. 1977; Mold., Phytol. Mem. 2: 159 & 620. 1980.*

Gardner misidentified and distributed his material of this taxon as *Eriocaulon* sp.

Additional citations: BRAZIL: Minas Gerais: *G. Gardner 5268* (W--1067054--isotype).

*PAEPALANTHUS TRICHOPHYLLUS* (Bong.) (Körn.

Additional bibliography: "M. P. B." [Mold.], *Biol. Abstr. 63: 6594. 1977; Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 252--253. 1977; Hocking, Excerpt. Bot. A.31: 17. 1978; Mold., Phytol. Mem. 2: 159 & 620. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 76. 1980*

Recent collectors describe this plant as an erect branched herb, 25--35 cm. tall, the leaves gray- or grayish-green, the involucre bractlets brown or dark-brown, and the florets whitish. They have found it growing in dry places on campo rupestre, in marshes in a region of "sandstone, conglomerate, metamorphic and quartzite rock outcrops with associated scrubby vegetation with damp flushes, grassland, and marsh in some areas", at 1300--1850 m. altitude, flowering and fruiting in March and July.

Additional citations: BRAZIL: Bahia: *Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19727* (Ld, N, W--2936315), *19729* (Ld, N, W--2936314), *19733* (Ld, N, W--2936313); *Harley, Renvoize, Erskine, Brighton, & Pinheiro in Harley 16066* (W--2791566). MOUNTED CLIPPINGS: *Kunth, Enum. Pl. 3: 579. 1841* (N, W).

*PAEPALANTHUS TRUXILLENIS* Körn.

Additional bibliography: *Knuth, Feddes Repert. Spec. Nov. Beih. 43: [Init. Fl. Venez.] 181. 1927; Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 253--254. 1977; Mold., Phytol. Mem. 2: 118 & 620. 1980.*

Recent collectors describe this plant as having the leaves dull pale-green or rich-green on both surfaces, the flower-heads white or dull-white, and the involucre bractlets "gray-black" or "black-green". They have encountered it on paramos, at 3000--3200 m. altitude, flowering in June.

Knuth (1927) cites only *Linden 297* from Trujillo, Venezuela.

Additional citations: VENEZUELA: Apure: *Steyermark, Dunsterville, & Dunsterville 98629* (N), *101142* (N). Lara: *Liesner, Gonzalez, Wingfield, & Burandt 8054* (Ld). Táchira: *Steyermark 57371* (W--1901728).

*PAEPALANTHUS TUBERCULATUS* Alv. Silv.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 254. 1977; Mold., Phytol. Mem. 2: 159 & 620. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 222--224, pl. 147. 1928 (Ld, N, W).

*PAEPALANTHUS TUBEROSUS* (Bong.) Kunth

Additional synonymy: *Paepalanthus tuberosus* (Bong.) Ruhl. ex Mold., Phytologia 54: 244 in syn. 1983.

Additional & emended bibliography: Bong., Mem. Acad. Imp. Sci. St.-Petersb., ser. 6, 1: 629--630. 1831; Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 254--255 & 279. 1977; Mold., Phytol. Mem. 2: 159 & 620. 1980; Mold., Phytologia 44: 244. 1983.

Citations: MOUNTED CLIPPINGS: Bong., Ess. Monog. Erioc. 29. 1831 (N, W); Kunth, Enum. Pl. 3: 575. 1841 (N, W).

*PAEPALANTHUS ULEANUS* Ruhl.

Additional bibliography: Mold., Phytologia 42: 35. 1979; Mold., Phytol. Mem. 2: 159 & 620. 1980.

*PAEPALANTHUS UNCINATUS* G. Gardn.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 256. 1977; Mold., Phytol. Mem. 2: 159 & 620. 1980.

*PAEPALANTHUS UNDULATUS* Ruhl.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 256--257 & 278. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980.

*PAEPALANTHUS URBANIANUS* Ruhl.

Additional bibliography: Anon., Roy. Bot. Gard. Kew Lib. Awaren. 8: 33. 1978; Mold., Phytologia 42: 35. 1979; Mold., Phytol. Mem. 2: 160 & 620. 1980.

Additional citations: BRAZIL: Goiás: W. R. Anderson 7689 (W--2755406).

*PAEPALANTHUS URBANIANUS* var. *ANGUSTIFOLIUS* Mold.

Additional bibliography: Mold., Phytologia 42: 35. 1979; Mold., Phytol. Mem. 2: 160 & 620. 1980.

*PAEPALANTHUS USTERII* Beauverd

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 258--259. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980.

Citations: MOUNTED CLIPPINGS: Beauverd, Bull. Herb. Boiss., ser. 2, 8: 295. 1908 (N, W).

*PAEPALANTHUS VAGINANS* Alv. Silv.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 259. 1977; Mold., Phytol. Mem. 2: 160 & 620.

1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 166--167, pl. 106. 1928 (Ld, N, W).

*PAEPALANTHUS VAGINATUS* Körn.

Additional bibliography: Phytologia 35: 259--260. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980.

Additional citations: BRAZIL: Minas Gerais: Irwin, Santos, Souza, & Fonseca 22825 (W--2582553A).

*PAEPALANTHUS VARIABILIS* Alv. Silv.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 261. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Serr. Min. 49. 1908 (W); Alv. Silv., Fl. Mont. 1: 154--156, pl. 97 & 98. 1928 (Ld, N, W).

*PAEPALANTHUS VARIABILIS* var. *GLABRESCENS* Alv. Silv.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 261. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 156. 1928 (Ld, N, W).

*PAEPALANTHUS VELLOZIOIDES* Körn.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 260, 262--263, & 279 (1977) and 37: 35. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980.

Additional citations: BRAZIL: Minas Gerais: Maguire, Maguire, & Murca Pires 44680 (Ld, N).

*PAEPALANTHUS VELUTINUS* Alv. Silv.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 264. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 145--147, pl. 91. 1928 (Ld, N, W).

*PAEPALANTHUS VENETIFOLIUS* Mold. & Steyerem.

Additional bibliography: Mold., Phytologia 42: 35. 1979; Mold., Phytol. Mem. 2: 160 & 620. 1980.

Additional citations: VENEZUELA: Bolívar: Steyermark, Espinoza, & Brewer-Carías 109405 (W--2813879--isotype). MOUNTED ILLUSTRATIONS: Mold. in Steyerem. & Brewer-Carías, Bol. Soc. Venez. Cienc. Nat. 132/133: [285], fig. 4. 1976 (Ld).

*PAEPALANTHUS VENUSTOIDES* Mold.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 35: 264. 1977; Mold., Phytol. Mem. 2: 118, 427, & 620. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Mold., Act. Biol.



Venez. 2: 49. 1957 (Ld); Soukup, Biota 5: 302. 1959 (Ld).

*PAEPALANTHUS VENUSTUS* Mold.

Additional bibliography: Mold., Biol. Abstr. 64: 686. 1977; Mold., Phytologia 37: 55 (1977) and 38: 126. 1977; Hocking, Excerpt. Bot. A.31: 17 & 18. 1978; Mold., Phytol. Mem. 2: 118 & 620. 1980.

Recent collectors have found this plant growing at 1650 m. altitude.

Additional citations: VENEZUELA: Bolívar: *B. Maguire 32800* (W--2168891), *32840* (W--2168893--isotype), *32884* (W--2168894); *Steiermark, Berry, Dunsterville, & Dunsterville 117452a* (Ld).

*PAEPALANTHUS VESTITUS* Ruhl.

Additional bibliography: Hocking, Excerpt. Bot. A.31: 17. 1978; Mold., Phytologia 42: 35. 1979; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 76. 1980; Mold., Phytol. Mem. 2: 160 & 620. 1980.

*PAEPALANTHUS VESTITUS* var. *CAULESCENS* Mold.

Additional bibliography: Mold., Phytologia 42: 35. 1979; Mold., Phytol. Mem. 2: 160 & 620. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 76. 1980.

Recent collectors describe this plant as shrubby, with an erect to creeping stem to 1 m. long and with spiral phyllotaxy, the leaves silvery-gray. They have found it growing in the shade of rocks in a region of "sandstone, conglomerate, metamorphic and quartzite rock outcrops with associated scrubby vegetation with damp flushes, grassland, and marsh in some areas", at 1500--1850 m. altitude, in flower and fruit in February and March.

Additional citations: BRAZIL: Bahia: *Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19579* (K, K), *19704* (N).

*PAEPALANTHUS VIGIENSIS* Mold.

Additional bibliography: Mold., Phytologia 35: 278. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980.

*PAEPALANTHUS VILLIPES* Mold.

Synonymy: *Paepalanthus viliipes* Mold., Phytologia 54: 244 in syn. 1983.

Additional bibliography: Mold., Phytologia 35: 278--279. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980; Mold., Phytologia 54: 244. 1983.

Additional citations: BRAZIL: Pará: *Murça Pires 4082* (W--2221370).

*PAEPALANTHUS VILLOSULUS* Mart.

Additional bibliography: Domin, Ann. Jard. Bot. Buitenz. 24 [ser. 2, 9]: 248. 1911; Mold., Phytologia 35: 279--280. 1977; Mold., Phytol. Mem. 2: 160 & 620. 1980.

*PAEPALANTHUS VIRIDIPES* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 280. 1977; Mold., *Phytol. Mem.* 2: 160 & 620. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 115--116, pl. 71. 1928 (Ld, N, W).

*PAEPALANTHUS VIRIDIS* Körn.

Additional bibliography: Mold., *Phytologia* 42: 35--36. 1979; Mold., *Phytol. Mem.* 2: 118, 160, & 620. 1980.

Recent collectors describe this plant as having dull-green leaves and "pale-white" flowering heads. They have found it growing on sandy shaded banks bordering roadside ditches, at 250--300 m. altitude, in both flower and fruit in November.

Additional citations: VENEZUELA: Táchira: *Steyermark, Liesner, & González 119549* (Ld).

*PAEPALANTHUS VIRIDULUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 35: 281--282. 1977; Mold., *Phytol. Mem.* 2: 160 & 620. 1980.

*PAEPALANTHUS VISCOSUS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 282. 1977; Mold., *Phytol. Mem.* 2: 125 & 620. 1980.

Huber & Tillett have encountered this plant in extensive shrubby matorrales and frequent on banks, in the open, and in anegadizas areas, at 100--120 m. altitude, in both flower and fruit in March and July, describing the inflorescence heads as white or dark-gray and dry. They further state that it "formando pequeños cojines, frecuente en la sabana y sobre el arena desnuda de la antigua carretera".

Additional citations: VENEZUELA: Amazonas: *O. Huber 5150* (Ld); *Huber & Tillett 5352* (Ld), *5447* (Ld). SURINAM: *Archer 2836* (W--2250358--isotype); *Maguire & Stahel 23665* (W--1907850), *24979* (W--1907846).

*PAEPALANTHUS WARMINGIANUS* (Körn.) Körn.

Additional bibliography: Mold., *Phytologia* 35: 282--283. 1977; Mold., *Phytol. Mem.* 2: 160 & 620. 1980.

*PAEPALANTHUS WEBERBAUERI* Ruhl.

Additional bibliography: Mold., *Phytologia* 42: 36. 1979; Mold., *Phytol. Mem.* 2: 134 & 620. 1980.

*PAEPALANTHUS WEDDELLIANUS* Körn.

Additional bibliography: Mold., *Phytologia* 35: 283--284. 1977; Mold., *Phytol. Mem.* 2: 160 & 620. 1980.

*PAEPALANTHUS WILLIAMSII* Mold.

Additional bibliography: Mold., *Phytologia* 42: 36. 1979; Mold., *Phytol. Mem.* 2: 110, 118, 160, & 620. 1980; *Hocking, Excerpt. Bot. A.36: 22. 1981.*

Recent collectors describe this plant as 30 cm. tall, the

flowers cream color or "tan", and "the inflorescence producing plantlets". They have found it growing in white sand of flooded campina, in forests next to white sand savannas, in sandy soil of campo fechada, and "not common" in very wet spots of white sand campina, in flower in June, July, and November, and in fruit in April and May.

Additional citations: COLOMBIA: Vaupés: *Schultes, Baker, & Cabrera 18166* (W--2198895). VENEZUELA: Amazonas: *Davidse, Huber, & Tillett 16962* (Ld); *Huber, Tillett, & Davidse 3770* (Ld); *Maguire & Wurdack 34549* (W--2168930); *Maguire, Wurdack, & Keith 41757* (W--2279317). BRAZIL: Amazonas: *Calderón, Monteiro, & Guedes 2671* (Ld, W--2931234); *Cid, Buck, Nelson, Almeida, Mota, & Lima 466* (Ld). Pará: *Froes 29934* (W--2343719). Roraima: *Steward, Araujo, Buck, Ramos, & Ribamar 97* (Ld, N, N, W--2930232).

*PAEPALANTHUS WURDACKI* Mold.

Additional bibliography: Mold., *Phytologia* 35: 284--285. 1977; Mold., *Phytol. Mem.* 2: 134 & 620. 1980.

*PAEPALANTHUS XANTHOPUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 285. 1977; Mold., *Phytol. Mem.* 2: 160 & 620. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 70--72, pl. 41. 1928 (Ld, N, W).

*PAEPALANTHUS XIPHOPHYLLUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 35: 285. 1977; Mold., *Phytol. Mem.* 2: 160 & 620. 1980.

*PAEPALANTHUS YUCCA* Ruhl.

Additional bibliography: Mold., *Biol. Abstr.* 64: 1838. 1977; Mold., *Phytologia* 35: 285--286. 1977; Hocking, *Excerpt. Bot. A.31:* 17. 1978; Angely, *S. Amer. Bot. Bibl.* 2: 674. 1980; Mold., *Phytol. Mem.* 2: 160 & 620. 1980.

*PHILODICE* Mart.

Additional & emended bibliography: Meisn., *Pl. Vasc. Gen.* 2: 312. 1843; Durand, *Ind. Gen. Phan.* 454. 1888; Post & Kuntze, *Lexicon* 431 & 623. 1904; Lotsy, *Vortr. Bot. Stammesges.* 3 (1): 707. 1911; Knuth, *Feddes Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 183. 1927; Rouleau, *Guide Ind. Kew.* 145 & 270. 1970; Thanikaimoni, *Inst. Franc. Pond. Trév. Sect. Scient. Techn.* 13: 180 & 285. 1976; Giuliotti, *Bol. Bot. Univ. S. Paulo* 6: [61] & 63. 1978; Hocking, *Excerpt. Bot. A.31:* 17 & 18. 1978; Mold., *Phytologia* 42: 36 & 509. 1977; Monteiro, Giuliotti, Mazzoni, & Castro, *Bol. Bot. Univ. S. Paulo* 7: [43], 45, 47, 54, & 59, fig. 101. 1979; Mold., *Phytologia* 45: 40 & 509. 1980; Mold., *Phytol. Mem.* 2: 111, 118, 123, 125, 160, 172, 426, 430, 431, & 620. 1980; Hocking, *Excerpt. Bot. A.36:* 22. 1981; Badillo, Schnee, & Rojas, *Ernstia* 14: [Clave Fam. Pl. Sup. Venez., ed. 6] 213. 1983; Mold., *Phytologia* 52: 508 (1983), 54: 244 (1983), and 54: 509. 1983.

*PHILODICE CUYABENSIS* (Bong.) Körn.

Additional synonymy: *Philodice cuyabensis* (Bong.) Ruhl. ex Mold., *Phytologia* 54: 244 in syn. 1983.

Additional bibliography: Mold., *Biol. Abstr.* 64: 1838; Mold., *Phytologia* 35: 288—289 (1977) and 38: 50. 1977; Hocking, *Excerpt. Bot. A.* 31: 17. 1978; Mold., *Phytol. Mem.* 2: 160 & 620. 1980; Mold., *Phytologia* 54: 244. 1983.

Poole refers to this plant as an infrequent annual, to 5 cm. tall, with whitish inflorescence heads, and found it in flower and fruit in June.

Additional citations: BRAZIL: Amazonas: Poole 1795 (N). MOUNTED CLIPPINGS: Bong., *Ess. Monog. Erioc.* 34. 1831 (W); Kunth, *Enum. Pl.* 3: 571. 1841 (N, W).

*PHILODICE HOFFMANNSEGGII* Mart.

Additional bibliography: Knuth, *Feddes Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 183. 1927; Hocking, *Excerpt. Bot. A.* 31: 17 & 18. 1978; Mold., *Phytologia* 42: 36. 1979; Monteiro, Giulietti, Mazzoni, & Castro, *Bol. Bot. Univ. S. Paulo* 7: [43], 45, 47, 54, & 59, fig. 101. 1979; Mold., *Phytol. Mem.* 2: 111, 118, 123, 125, 160, 172, 426, & 620. 1980; Hocking, *Excerpt. Bot. A.* 36: 22. 1981.

Additional illustrations: Monteiro, Giulietti, Mazzoni, & Castro, *Bol. Bot. Univ. S. Paulo* 7: 59, fig. 101. 1979.

Recent collectors describe this plant as 10 cm. tall, growing in tufts, with white or "dirty-white" inflorescence heads. They have found it growing in wet sandy soil, in places visited by cattle near swamps, in sandy soil of campo rupestre, in seepage areas and sandy spots in low forested areas around ponds. "rare in sandy areas along airstrips", and "rare on beach dunes in association with *Anacardium*, *Byrsonima*, and *Chrysobalanus*", at 62--900 m. altitude, in both flower and fruit in March, June, and December.

Knuth (1927) cites Gaillard 167 and Passarge & Selwyn 352, 359, & 577 from Bolívar, Venezuela.

Material of this species has been misidentified and distributed in some herbaria as *Paepalanthus bifidus* (Schrud.) Kunth.

Additional citations: COLOMBIA: Magdalena: Haught 2357 (W--1707006). VENEZUELA: Apure: Davidse & González 13695 (Ld). Bolívar: Wurdack & Monachino 39958 (W--2223431). Guárico: Delascio, Montes, & Davidse 11202 (Ld), 11273 (E--2994260). GUYANA: Goodland & Persaud 778 (W--2548132); Maas, Westra, & al. 4105 (Ld, N); A. C. Smith 2284 (W--1776734). SURINAM: Freund & Freund R.26b (W--2371503); Irwin, Prance, Soderstrom, & Holmgren 55932 (W--2515086). BRAZIL: Mato Grosso: Malme 1634 (W--1483434); Prance & Schaller 26250 (Ld, N); Rosa & Santos 1973 (N). Minas Gerais: Hatschbach 42897 (Ld, W--2931959). Pará: Austin, Nauman, Nelson, & Prince 6951 (Ld, N). Piauí: G. Gardner 2749bis (W--1440337).

*RONDONANTHUS* Herzog

Additional bibliography: Knuth, *Feddes Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 180. 1927; Rouleau, *Guide Ind. Kew.* 164 & 270. 1970; Mold., *Biol. Abstr.* 64: 1838. 1977; Hocking, *Excerpt.*

Bot. A.31: 17 & 18. 1978; Mold., *Phytologia* 37: 56 & 510. 1977; Giuliotti, Bol. Bot. Univ. S. Paulo 6: 63. 1978; Mold., *Phytologia* 42: 36--37 & 510 (1979) and 45: 40 & 510. 1980; Mold., *Phytol. Mem.* 2: 118, 123, 398, 436, & 620. 1980; Hocking, *Excerpt. Bot. A.36*: 22. 1981; Mold., *Phytologia* 50: 245 & 510 (1982) and 54: 263. 1983; Badillo, Schnee, & Rojas, *Ernstia* 14: [Clave Fam. Pl. Sup. Venez., ed. 6] 213. 1983; Mold., *Phytologia* 54: 510. 1984.

*RONDONANTHUS MICROPETALUS* Mold.

Additional bibliography: Mold., *Phytologia* 37: 56. 1977; Hocking, *Excerpt. Bot. A.31*: 17 & 18. 1978; Mold., *Phytol. Mem.* 2: 118 & 620. 1980.

Additional citations: VENEZUELA: Bolívar: J. A. Steyermark 58777 (W--1901784--isotype).

*RONDONANTHUS RORAIMAE* (Oliv.) Herzog

Additional bibliography: Knuth, *Feddes Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 180. 1927; Hocking, *Excerpt. Bot. A.31*: 17 & 18. 1978; Mold., *Phytologia* 42: 36--37. 1979; Mold., *Phytol. Mem.* 2: 118, 123, 398, 436, & 620. 1980; Hocking, *Excerpt. Bot. A.36*: 22. 1981; Mold., *Phytologia* 50: 245 (1982) and 54: 263. 1983.

Recent collectors have encountered this plant at 2500 m. altitude, in fruit in February.

Knuth (1927) cites "Connell & Quelch" 102, 305, & 660, *ImThurn* 294, and *Ule s.n.* from Roraima, Venezuela. The *Steyermark, Espinosa, McDiarmid, & Brewer-Carías* 115885, distributed as *R. roraimae*, actually is *Paepalanthus duidae* Gleason.

Additional citations: VENEZUELA: Amazonas: *Steyermark, Brewer-Carías, & Liesner* 124469 (N). Bolívar: J. A. Steyermark 58799 (W--1987387). GUYANA: *ImThurn* 294 (W--253901--isotype). BRAZIL: Roraima: *Lützelburg* 21605 [Macbride photos 18723] (Ld--photo). MOUNTED CLIPPINGS: Oliv., *Trans. Linn. Soc. Lond. Bot.* 2: 286. 1887 (N, W).

*SYNGONANTHUS* Ruhl.

Additional & emended bibliography: Raf., *Atl. Journ.*, imp. 1, 1: 121. 1832; Post & Kuntze, *Lexicon* 219, 546, & 623, 1904; Ruhl. in *Wettstein, Denkschr. K. Akad. Wiss. Wien Math.-Nat.* 79: 87. 1908; Thonner, *Blütenpfl. Afr.* 129. 1908; Thonner, *Flow. Pl. Afr.* 121. 1915; J. C. Willis, *Dict. Flow. Pl.*, ed. 5, 635. 1925; Knuth, *Feddes Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 180--182. 1927; Airy Shaw in J. C. Willis, *Dict. Flow. Pl.*, ed. 6, imp. 1, 418, 430, 656, & 1095. 1931; Raf., *Autikon Bot.*, imp. 2, 189. 1943; Raf., *Atl. Journ.*, imp. 2, 1: 121. 1946; Airy Shaw in J. C. Willis, *Dict. Flow. Pl.*, ed. 6, imp. 2, 418, 430, 656, & 1095. 1948; Lawrence, *Taxon. Vasc. Pl.*, imp. 1, 405 & 818. 1951; Airy Shaw in J. C. Willis, *Dict. Flow. Pl.*, ed. 6, imp. 3, 635 (1951) and ed. 7, 418, 430, 656, & 1095. 1966; Rouleau, *Guide Ind. Kew.* 110, 183, & 270. 1970; Lawrence, *Taxon. Vasc. Pl.*, imp. 2, 405 & 818. 1971; Wedge, *Pl. Names*, ed. 1, 18 (1973) and ed. 2, 24. 1974; Hocking, *Excerpt. Bot. A.23*: 291--293 & 388. 1974; Galvão & Caval-

cante, Bol. Mus. Para. Goeldi, ser. 2, Bot. 1: 3 & 15. 1975; Thanikaimoni, Inst. Franç. Pond. Trav. Sect. Scient. Techn. 13: 229 & 285. 1976; Anon., Roy. Bot. Gard. Kew Lib. Curr. Awaren. 8: 33 (1978), 9: 23 & 33 (1978), and 10: 27. 1978; C. D. Cook in Heywood, Flow. Pl. World 281 & 282, fig. 2. 1978; Giulietti, Bol. Bot. Univ. S. Paulo 6: 63. 1978; Hocking, Excerpt. Bot. A.31: 17 & 18. 1978; Monteiro-Scanavacca & Mazzoni, Revist. Bras. Bot. 1: [59]. 1978; Anon., Roy. Bot. Gard. Kew Lib. Curr. Awaren. 2: 28 & 39. 1979; Anon., Biol. Abstr. 68: 4592. 1979; Benson, Pl. Classif., ed. 2, 373. 1979; Cronquist, How Know Seed Pl. 124--125, fig. 265. 1979; Hocking, Excerpt. Bot. A.33: 5, 87, 89, & 165. 1979; Kral, in Godfrey & Wooten, Aquat. Wetl. Pl. Southeast. U. S. 520 & 529--530, fig. 307. 1979; Mold., Phytologia 42: 30, 31, 37--44, 199--208, & 511 (1979), 43: 356 & 511 (1979), and 44: 215--216, 384, & 511. 1979; Monteiro, Giulietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo 7: [43]--47, 53, & 58, fig. 70--88. 1979; Angely, S. Am. Bot. Bibl. 2: 670, 671, 673, 675, & 678. 1980; Mold., Phytologia 45: 40, 209, 477, 478, & 511, pl. 5 (1980), 46: 155 & 511 (1980), and 47: 17. 1980; Mold., Phytol. Mem. 2: 16, 18, 20, 24--26, 67, 74, 82, 84, 91, 92, 96, 111, 112, 119, 120, 123, 125, 126, 129, 135, 163--168, 172, 175, 179, 180, 190, 205, 207, 209, 213, 217, 221, 223, 228, 234, 236, 238, 246, 251, 361, 373, 379, 397, 398, 400, 401, 404, 405, 418, 424--428, 435, 441--444, 463, 498, & 620-628. 1980; Hocking, Excerpt. Bot. A.35: 324. 1980; J. T. & R. Kortesz, Syn. Checklist Vasc. Fl. 2: 197. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 76--77. 1980; Cronq., Integ. Syst. Classif. 1118. 1981; Duncan & Kortesz, Vasc. Fl. Ga. 36. 1981; Hocking, Excerpt. Bot. A.36: 22 & 23. 1981; Mold., Phytologia 47: 511 (1981), 48: 291 & 511 (1981), and 49: 293 & 511. 1981; Silva & Mori, Cent. Pesq. Cacau Bol. Tecn. 89: 8, 52, & 53. 1981; Cronq. in S. P. Parker, Synop. Classif. Liv. Organisms 1: 472. 1982; Hocking, Excerpt. Bot. A.39: 101. 1982; Mold., Phytologia 50: 215, 234, 243, 245, 246, 248, 263, 264, 270, & 511 (1982), 51: 245, 302, & 508 (1982), and 52: 19, 111, 112, & 231--232. 1982; Reis & Lipp, New Pl. Sources Drugs 22. 1982; Wunderlin, Guide Vasc. Pl. Cent. Fla. 125 & 126. 1982; Badillo, Schnee, & Rojas, Erastia 14: [Clave Fam. Pl. Sup. Venez., ed. 6] 213. 1983; Mold., Phytologia 52: 511 (1983), 53: 264, 270, 311, 320, 367, 368, & 510 (1983), and 54: 68, 69, 122, 131, 136, 139, 144, 145, 232, 234, 235, 237, 238, 244, 259, 263, 269, 436, 439, & 451. 1983; Ramaswamy, Arekal, & Kaju, Bull. Torrey Bot. Club 110: 289. 1983; Mold., Phytologia 54: 511 (1984) and 55: 43, 45, & 52. 1984.

The *Maas & Westra 4029*, distributed as *Syngonanthus* sp., actually is *Eriocaulon tenuifolium* Klotzsch, while *Rabelo 6* is *E. aquatile* var. *latifolium* Mold., Moore, Ambrose, Diez, & Pfister 9813 is *Paepalanthus cumbricola* Mold., and *Rosa & Santos 9813* is *P. oyapockensis* Herzog.

#### *SYNGONANTHUS ACIPHYLLUS* (Bong.) Ruhl.

Additional bibliography: Mold., Biol. Abstr. 64: 1838. 1977; Mold., Phytologia 35: 303 & 309--310 (1977) and 37: 487. 1977;

Hocking, Excerpt. Bot. A.31: 17. 1978; Mold., Phytol. Mem. 2: 163, 397, 442, & 620. 1980.

Additional citations: BRAZIL: Minas Gerais: Anderson, Stieber, & Kirkbride 35448 (W-2709604).

*SYNGONANTHUS ACOPANENSIS* Mold.

Additional bibliography: Mold., Phytologia 35: 310. 1977; Mold., Phytol. Mem. 2: 119 & 620. 1980; Mold., Phytologia 50: 245 (1982) and 54: 131, 136, & 263. 1983.

Recent collectors describe this plant as growing in clumps, the leaves subcoriaceous but flexible, erect, stiff, rich- or grass-green throughout, the inflorescence heads dry, gray, grayish-white, or "gray and blackish", the bracts blackish, the flowers themselves dull-white. They have encountered it in openings in zanjon, in wet soil of large swamps, in *Chimantaea mirabilis* vegetation, and in low scrub of *Mallophyton chimantensis*. It is said to be in and at the margins of *Mallophyton-Brocchinia* areas, frequently forming small colonies in small open depressions, frequently among 30--40 cm. tall grasses, on open sandy banks of rivers mixed with *Leiothrix flavescens* var. *alpina* Mold., and at the edges of sandstone rock formations bordering subsavannas of *Mallophyton* and *Chimantaea*, at altitudes of 2200--2685 m. altitude, in both flower and fruit in January, February, and June. Steyermark refers to the leaves as "membranous" and ascending, but actually they are subcoriaceous or coriaceous.

Material of this taxon has been misidentified and distributed in some herbaria as *Paepalanthus duidae* Gleason. On the other hand, the Maguire & al. 65638, distributed as *S. acopanensis*, actually is *Paepalanthus duidae* Gleason, while Steyermark 75926 is the type collection of *Leiothrix mucronata* var. *glabra* Mold.

Additional citations: VENEZUELA: Bolívar: Huber & Steyermark 6964 (Ld), 6970 (Ld), 7160 (Ld); J. A. Steyermark 75925 (W-2407778); Steyermark, Espinosa, McDiarmid, & Brewer-Carías 115818a (Ld); Steyermark, Huber, & Carreño E. 128165 in part (Ld), 128872 (Ld), 128938 (Ld).

*SYNGONANTHUS ALBOPULVINATUS* (Mold.) Mold.

Additional bibliography: Mold., Phytologia 35: 310--311. 1977; Mold., Phytol. Mem. 2: 119, 123, 442, & 620. 1980.

Recent collectors describe this plant as a rosulate herb, with the leaves blue- or gray-green or "green with gray-white hairiness", and the inflorescence heads white, "dull-white", or grayish-white. They have found it growing "in separate gray white clumps" in open sandstone rocky areas bordering wet savannas and frequent in sand openings on savannas, at 850--2200 m. altitude, in both flower and fruit in January, February, April, and October and December.

Material of this species has been misidentified and distributed in some herbaria as *S. gracilis* var. *koernickeanus* Ruhl.

Additional citations: VENEZUELA: Amazonas: O. Huber 3629 (Lc). Bolívar: Huber, Alarcon, & Barreat 6769 (Ld); Steyermark, Huber, & Carreño E. 128256 (Ld); Steyermark & Nilsson 638 (M, N, N, (W--2486248); Steyermark & Pruski 121065 (Ld); Steyermark & Wurdack

363 (W--2168505, W--2407715). GUYANA: *Maas, Mennega, & Groen* 5699 (Ld).

*SYNGONANTHUS ALLENI* Mold.

Additional bibliography: Mold., *Phytologia* 42: 37. 1979; Mold., *Phytol. Mem.* 2: 111, 119, 163, & 620. 1980; Hocking, *Excerpt. Bot. A.*36: 22. 1981.

Additional citations: BRAZIL: Pará: *Prance, Silva, Berg, Henderson, Nelson, Balick, Bahia, & Santos* P.25250 (W--2868551).

*SYNGONANTHUS ALLENI* var. *BRASILIENSIS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 311--312. 1977; Mold., *Phytol. Mem.* 2: 163 & 620. 1980.

*SYNGONANTHUS ALLENI* var. *PARVUS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 312. 1977; Mold., *Phytol. Mem.* 2: 119 & 620. 1980.

Huber refers to this plant as growing in "wet places".

Additional citations: VENEZUELA: Amazonas: *Huber* 2341 (Ld).

*SYNGONANTHUS AMAPENSIS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 312. 1977; Mold., *Phytol. Mem.* 2: 111, 163, & 620. 1980.

García-Barriga refers to this plant as an erect herb growing in isolated groups, the inflorescence white, and encountered it on savannas, at 400 m. altitude, in both flower and fruit in August. His no. 20859, cited below, bears a label inscribed "bejuco, frutos amarillos" -- obviously a case of mixed labels or stenographic error.

Additional citations: COLOMBIA: Guainía: *García-Barriga* 20814 (W--2844179), 20830 (W--2844152), 20859 (W--2844156).

*SYNGONANTHUS AMAZONICUS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 312. 1977; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

*SYNGONANTHUS ANDROSACEUS* (Griseb.) Ruhl.

Additional bibliography: Hocking, *Excerpt. Bot. A.*31: 17 & 18. 1978; Mold., *Phytologia* 42: 37. 1979; Mold., *Phytol. Mem.* 2: 91, 442, & 621. 1980.

Additional citations: CUBA: Pinar del Rio: *Ekman* 10792 (W--1302520); *C. Wright* 3236 (W--46432).

*SYNGONANTHUS ANGOLENSIS* H. Hess

Additional bibliography: Mold., *Phytologia* 35: 308 & 313--314 (1977), 37: 82, 83, & 93 (1977), and 38: 26 & 33. 1977; Mold., *Phytol. Mem.* 2: 234, 444, & 621. 1980.

Citations: MOUNTED ILLUSTRATIONS: H. Hess, *Bericht. Schweiz. Bot. Gesell.* 65: text fig. 7 & 8, pl. 9, fig. 10 & 13. 1955 (Ld).

*SYNGONANTHUS ANGUSTIFOLIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 314--315 (1977)



and 37: 85. 1977; Mold., Phytol. Mem. 2: 163 & 621. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 370--371, pl. 236. 1928 (Ld, N, W).

*SYNGONANTHUS ANOMALUS* (Körn.) Ruhl.

Additional bibliography: Knuth, Feddes Repert. Spec. Nov. Beih. 43: [Init. Fl. Venez.] 181. 1927; Mold., Phytologia 37: 56--57, 87, & 260 (1977) and 38: 23. 1977; Mold., Phytol. Mem. 2: 111, 119, 123, 125, 163, 442, & 621. 1980.

Recent collectors describe this plant as having rich-green leaves, growing in dense stands on wet banks, "en lecho de quebrada seca", and "frecuente en la orilla del caño, cabezuelas blancuecinas", at 180--750 m. altitude, in both flower and fruit in February and November.

Knuth (1927) cites *Spruce 3259* from Bolívar, Venezuela. The *Murca Pires & Silva 4380*, distributed as *S. anomalus* and so cited in a previous installment of these notes, actually is *S. macrocaulon* Ruhl.

Additional citations: VENEZUELA: Amazonas: *Huber & Medina 5934* (Ld); *Maguire, Steyermark, & Maguire 60118* (N); *Maguire, Wurdack, & Bunting 36645* (W--2168980); *Maguire, Wurdack, & Maguire 42634* (W--2279367); *Steyermark, Guariglia, Holmgren, Luteyn, & Mori 126193* (Ld). Bolívar: *Agostini 264* (Út--3328556). SURINAM: *Irwin, Prance, Soderstrom, & Holmgren 55267* (W--2514871). BRAZIL: Amazonas: *Prance, Berg, Bisby, Steward, Monteiro, & Ramos 17814* (W--2772583); *Prance, Maas, Wootcott, Coêlho, Monteiro, & Ramos 15233* (W--2801670); *Prance, Maas, Woolcott, Monteiro, & Ramos 15541* (W--2801667); *Prance, Pennington, Nelson, & Ramos 21646* (N, W--2935279).

*SYNGONANTHUS ANTHEMIFLORUS* (Bong.) Ruhl.

Additional synonymy: *Eleocharis chrysanthemifolium* Schnitzl., Iconogr. 1: pl. 46, fig. 3. 1845.

Additional bibliography: Mold., Phytologia 37: 57, 96, 254, & 255 (1977) and 38: 38. 1977; Monteiro, Giulietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo 7: [43], 45, 47, 53, & 58, fig. 79--82. 1979; Mold., Phytol. Mem. 2: 163, 190, 400, 424, 425, 442, & 621. 1980.

Additional illustrations: Monteiro, Giulietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo 7: 58, fig. 79--82. 1979.

Additional citations: BRAZIL: Minas Gerais: *Anderson, Stieber, & Kirkbride 36202* (W--2709607); *Glaziou 19981* (W--1580392); *L. B. Smith 6845* (W--2120214). MOUNTED CLIPPINGS & ILLUSTRATIONS: Kunth, Enum. Pl. 3: 579. 1841 (N, W); Schnitzl., Iconogr. 1: 46, fig. 3. 1845 (Ba--381101).

*SYNGONANTHUS ANTHEMIFLORUS* var. *SUBGLABRESCENS* Mold.

Additional bibliography: Mold., Phytologia 35: 319--321. 1977; Mold., Phytol. Mem. 2: 163 & 621. 1980.

*SYNGONANTHUS APPRESSUS* (Körn.) Ruhl.

Additional bibliography: Mold., Phytologia 42: 37. 1979; Mold.,

Phytol. Mem. 2: 163 & 621. 1980.

*SYNGONANTHUS APPRESSUS* var. *CHAPADENSIS* Mold.

Additional bibliography: Mold., *Phytologia* 42: 37. 1979; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

Additional citations: BRAZIL: Goiás: Irwin, Harley, & Smith 32149 (W--2709888--isotype), 32203 (W--2709603).

*SYNGONANTHUS AQUATICUS* Alv. Silv.

Additional bibliography: Mold., *Biol. Abstr.* 64: 1838. 1977; Mold., *Phytologia* 35: 332. 1977; Hocking, *Excerpt. Bot. A.* 31: 17. 1978; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Serr. Min.* 74. 1908 (W); Alv. Silv., *Fl. Mont.* 1: 313--314, pl. 96. 1928 (Ld, N, W).

*SYNGONANTHUS AQUATICUS* var. *CAESPITOSUS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 332. 1977; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

Additional citations: BRAZIL: Amazônas: Prance, Maas, Atchley, Steward, Woolcott, Coêlho, Monteiro, Pinheiro, & Ramos 13778 (W--2708459--isotype).

*SYNGONANTHUS ARENARIUS* (G. Gardn.) Ruhl.

Additional bibliography: Mold., *Biol. Abstr.* 64: 1838. 1977; Mold., *Phytologia* 35: 332--334. 1977; Mold., *Phytol. Mem.* 2: 163, 424, & 621. 1980; Mold., *Phytologia* 54: 237. 1983.

*SYNGONANTHUS ARENARIUS* var. *HETEROPHYLLUS* (Körn.) Ruhl.

Additional bibliography: Mold., *Phytologia* 35: 334. 1977; Mold., *Phytol. Mem.* 2: 163 & 621. 1980; Mold., *Phytologia* 54: 237. 1983.

Calderon and his associates report this plant "common in white sand campina" and describe its inflorescences as white.

Additional citations: BRAZIL: Amazônas: Calderón, Monteiro, & Guedes 2554 (Ld, W--2931217).

*SYNGONANTHUS ARTHROTRICHUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 57. 1977; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 364--365, pl. 230. 1928 (Ld, N, W).

*SYNGONANTHUS ATROVIRENS* (Körn.) Ruhl.

Additional bibliography: Mold., *Phytologia* 35: 335. 1977; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

*SYNGONANTHUS AURIFIBRATUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 42: 37--38. 1979; Mold., *Phytol. Mem.* 2: 111, 163, & 621. 1980; Mold. in Harley & Mayo. *Toward Checklist Fl. Bahia* 76. 1980; Mold., *Phytologia* 54: 237. 1983.

Recent collectors have encountered this plant in wet sandy areas as well as in rather dry sand in a region of "open scrub on white sand with damp areas and extensive sedge meadows (brejo) partly burned over", at 950--1000 m. altitude, in flower in June, and in fruit in February and June. They describe it as an herb, 15 cm. tall, with gray rosettes of rigid leaves, gray scapes [peduncles], and white involucre bractlets.

Additional citations: BRAZIL: Bahia: *Harley, Mayo, Storr, Santos, & Pinheiro in Harley 18842* (Ld, N, W--2936297); *Mori & Boom 14516* (Ld, N). Rio de Janeiro: *Araujo & Maciel 5164* [Herb. FEEMA 22886] (N). MOUNTED ILLUSTRATIONS: *Alv. Silv., Fl. Mont. 1: pl. 228* (Ld, N).

*SYNGONANTHUS AURIPES* Alv. Silv.

Additional bibliography: *Mold., Phytologia 35: 336. 1977; Mold., Phytol. Mem. 2: 163 & 621. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 76. 1980; Hocking, Excerpt. Bot. A.36: 23. 1981; Silva & Mori, Cent. Pesq. Cacau Bol. Técn. 89: 8 & 52. 1981.*

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: *Alv. Silv., Fl. Mont. 1: 343--344, pl. 217. 1928* (Ld, N, W).

*SYNGONANTHUS AURIPES* var. *BAHIENSIS* Mold., *Phytologia 43: 356. 1979.*

Bibliography: *Mold., Phytologia 43: 356. 1979; Mold., Phytol. Mem. 2: 163 & 621. 1980; Hocking, Excerpt. Bot. A.36: 23. 1981; Silva & Mori, Cent. Pesq. Cacau Bol. Técn. 89: 8 & 52. 1981.*

Citations: BRAZIL: Bahia: *Harley, Mayo, Storr, Santos, & Pinheiro in Harley 18528* (Ld--isotype, N--isotype, Ub--type, W--2936299--isotype).

*SYNGONANTHUS BAHIENSIS* Mold.

Additional bibliography: *Mold., Phytologia 42: 38. 1979; Mold., Phytol. Mem. 2: 163 & 621. 1980.*

Mori & Boom encountered this plant in dry sandy areas between cracks in rocks, at 1000 m. altitude, in both flower and fruit in June.

Additional citations: BRAZIL: Bahia: *Irwin, Harley, & Smith 30703* (W--2709884--isotype); *Mori & Boom 14535* (Ld, N). MOUNTED ILLUSTRATIONS: *Mold., Phytologia 27: 70, fig. 3. 1973* (Ld).

*SYNGONANTHUS BALDWINI* Mold.

Additional bibliography: *Mold., Phytologia 37: 57. 1977; Mold., Phytol. Mem. 2: 163 & 621. 1980.*

Martinelli describes this plant as having concolorous leaves, the "inflorescence and peduncles green", and the flowers whitish. He found it growing among rocks in swamps, at 80 m. altitude, in flower in June.

Additional citations: BRAZIL: Amazonas: *Baldwin 3546* (W--1878943). Pará: *Campbell, Ongley, Ramos, & Monteiro P.22435* (N); *Martinelli 7222* [R. B. Herb. 202921] (Ld).

*SYNGONANTHUS BARBATUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 57. 1977; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 382--383, pl. 243. 1928 (Ld, N, W).

*SYNGONANTHUS BARTLETTII* Mold.

Additional bibliography: Mold., *Phytologia* 35: 337--338. 1977; Mold., *Phytol. Mem.* 2: 74 & 621. 1980.

The Bartlett 11670 collection, cited below, is a mixture with *Drosera* sp. and *Xyris* sp.

Additional citations: BELIZE: Bartlett 11263 in part (W--1493358), 11670 in part (Ld--isotype, W--1493090--isotype).

*SYNGONANTHUS BELLUS* Mold.

Additional bibliography: Mold., *Phytologia* 42: 38 & 41. 1979; Mold., *Phytol. Mem.* 2: 119, 163, & 621. 1980.

Recent collectors describe this plant as an herb, 10--20 cm. tall, the inflorescences small and yellow, and the flowers white. They have found it very abundant on campo sujo, in solo areia, common in open areas in dense campina, frequent on savannas, and abundant in white sand campinas, at 600--1100 m. altitude, in flower in November, and in both flower and fruit in June and October.

Material of this species has been misidentified, distributed in some herbaria, and even cited by me in previous installments of these notes as *S. fertilis* (Körn.) Ruhl. and *S. humboldtii* var. *glandulosus* Gleason. The Prance & al. collection, cited below, is a mixture with *S. gracilis* var. *hirtellus* (Steud.) Ruhl. and *Panicum* sp.

Additional & emended citations: VENEZUELA: Amazonas: O. Huber 4502 (Ld). Bolivar: G. H. H. Tate 1308 (N). BRAZIL: Amapá: Murça Pires & Cavalcante 52383 (W--2514664). Amazonas: Calderón, Monteiro, & Guedes 2550 (Ld, W--2931214). Pará: Bastos, Ubiratan, Bouças, & Carvalho 101 (N); Black 50-8647 (W--2252946); Daly, Campbell, Silva, Silva, Bahia, & Santos D.921 (Ld, N); Ducke 12025 (Ld); Fróes 34572 (W--2484358); Maguire & Murça Pires 40843 (W--2198747); Prance, Pennington, & Murça Pires 1283 in part (W--2514723).

*SYNGONANTHUS BICOLOR* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 338--339 & 348 (1977) and 37: 255. 1977; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 337--338, pl. 213. 1928 (Ld, N, W).

*SYNGONANTHUS BIFORMIS* (N. E. Br.) Gleason

Additional bibliography: Mold., *Phytologia* 42: 38 & 42. 1979; Mold., *Phytol. Mem.* 2: 111, 119, 123, 125, 163, 442, 621, & 628. 1980; Mold., *Phytologia* 50: 264. 1982.

Recent collectors describe this species as an herb of low stature, forming dense tufts, with a rosette of leaves on the ground and with several flowering stems, many poorly developed individuals with only one flowering stem, to 10 cm. tall, the inflorescence heads white or gray-white. They have found it growing in grayish clay soil, in open areas of cerrado on white sand, on rocks densely covered with mosses and small ferns along small rocky mountain streams, in white sand on low islands with scrubby vegetation, and common in open places on wet savannas, at 150--450 m. altitude, in both flower and fruit in October and November.

The *Maguire, Maguire, & Wilson-Browne 46179a*, distributed as *S. biformis* and so cited by me in a previous installment of these notes, proves actually to be *S. gracilis* var. *aureus* Ruhl.

Additional citations: COLOMBIA: Vaupés: Cuatrecasas 6975 (W--1796731). VENEZUELA: Amazonas: *O. Huber 1198* (Ld); *Maguire & Politi 27342* (W--2046424); *Maguire, Wurdack, & Keith 41474* (W--2279270); *J. A. Steyermark 58468* (W--1901775). Apure: *Davidse & González 15926* (Ld). Bolívar: *J. A. Steyermark 59305* (W--1987406), *60484* (W--1901834); *Steyermark, Dunsterville, & Dunsterville 104528* (W--2622557). GUYANA: *Maas, Westra, & al. 3695* (Ld, N), *4028* (Ld, N), *4275* (Ut--270658B), *4345* (Ld, N); *Maguire, Maguire, & Wilson-Browne 46012* (W--2514898), *46179A* (W--2514875). SURINAM: *B. Maguire 24728* (W--1907843). BRAZIL: *Amazônas: Madison, Kennedy, Monteiro, & Braga 6157* (N); *Steward, Araujo, Rogers, Ramos, & Ribamar 415* (Ld, N). Rondônia: *Prance, Rodrigues, Ramos, & Farias 8914* (W--2573053A). Roraima: *Steward, Araujo, Buck, Ramos, & Ribamar 73* (N).

*SYNGONANTHUS BISULCATUS* (Körn.) Ruhl.

Additional bibliography: Mold., *Phytologia* 42: 38. 1979; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

Additional citations: BRAZIL: Minas Gerais: *Hatschbach 41319* (N, W--2840049); *Irwin, Maxwell, & Wasshausen 20536* (W--2598433); *Irwin, Santos, Souza, & Fonsêca 22663* (W--2582557A); *L. B. Smith 6846* (W--2120215).

*SYNGONANTHUS BISULCATUS* var. *ANGUSTIFOLIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 342. 1977; Mold., *Phytol. Mem.* 2: 163 & 621. 1980.

Citations: MOUNTED CLIPPINGS: *Alv. Silv., Fl. Mont.* 1: 362. 1928 (Ld, N, W).

*SYNGONANTHUS BISUMBELLATUS* (Steud.) Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 57 & 90. 1977; Mold., *Phytol. Mem.* 2: 111, 119, 123, 163, 442, 443, & 612. 1980.

Recent collectors describe the inflorescence heads of this plant as whitish and have found it growing on wet savannas.

Additional citations: COLOMBIA: Vaupés: *Schultes, Baker, & Cabrera 18449* (W--2198903). GUYANA: *Maas & Westra 4050* (Ld, N).

*SYNGONANTHUS BISUMBELLATUS* var. *FROESII* (Mold.) Mold.

Additional bibliography: Mold., *Phytologia* 35: 343 & 344. 1977; Mold., *Phytol. Mem.* 2: 164. 1980.

*SYNGONANTHUS BLACKII* Mold.

Additional bibliography: Mold., *Phytologia* 35: 344. 1977; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

*SYNGONANTHUS BRACTEOSUS* Mold.

Additional bibliography: Mold., *Phytologia* 42: 38. 1979; Mold., *Phytol. Mem.* 2: 164 & 621. 1980; Mold., *Phytologia* 52: 231--232. 1982.

Additional citations: BRAZIL: Minas Gerais: Irwin, *Fonseca, Souza, Santos, & Ramos 27118* (W--2709886--isotype).

*SYNGONANTHUS BRACTEOSUS* var. *SCRUPULOSUS* Mold., *Phytologia* 52: 231--232. 1982.

Bibliography: Mold., *Phytologia* 52: 231--232. 1982.

Citations: BRAZIL: Amazonas: Calderón, Monteiro, & Guedes 2692 (Ld--type, W--2931231--isotype, W--2970400--isotype).

*SYNGONANTHUS BREVIFOLIUS* Gleason

Additional bibliography: Mold., *Phytologia* 35: 344--345 & 356. 1977; Mold., *Phytol. Mem.* 2: 123 & 621. 1980.

Additional citations: MOUNTED CLIPPINGS: Gleason, *Bull. Torrey Bot. Club* 56: 14. 1929 (N, W).

*SYNGONANTHUS CABRALENSIS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 345. 1977; Mold., *Phytol. Mem.* 2: 164, 443, & 621. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 340--342, pl. 215. 1928 (Ld, N, W).

*SYNGONANTHUS CACHIMBOENSIS* Mold.

Additional bibliography: Galvão & Cavalcante, *Bot. Mus. Para. Geoldi, ser. 2, Bot.* 1: 3 & 15. 1975; Mold., *Phytologia* 35: 345--346. 1977; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

*SYNGONANTHUS CAESPITOSUS* (Wikstr.) Ruhl.

Additional bibliography: Mold., *Biol. Abstr.* 64: 1838. 1977; Mold., *Phytologia* 35: 346--347, 443, & 457 (1977) and 36: 56. 1977; Mold., *Phytol. Mem.* 2: 164, 418, & 621. 1980.

*SYNGONANTHUS CANALICULATUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 339, 347--348, 438, 439, & 456. 1977; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 327--328, pl. 208. 1928 (Ld, N, W).

*SYNGONANTHUS CANASTRENSIS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 348 (1977) and 38: 126. 1977; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 368--369, pl. 233. 1928 (Ld, N, W).

*SYNGONANTHUS CANDIDUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 42: 38. 1979; Mold., *Phytol. Mem.* 2: 164 & 621. 1980; Mold. in Harley & Mayo, *Toward Checklist Fl. Bahia* 76. 1980.

*SYNGONANTHUS CANDIDUS* var. *BAHIENSIS* Mold.

Additional bibliography: Mold., *Phytologia* 42: 38. 1979; Mold., *Phytol. Mem.* 2: 164 & 621. 1980; Mold. in Harley & Mayo, *Toward Checklist Fl. Bahia* 76. 1980.

Recent collectors describe this plant as a rosette herb, to 20 cm. tall, the leaves gray and rigid, the outer involucral bracts short and stramineous, the inner ones elongate and spreading, shiny-white, and the florets creamy-white. They have found it growing on campo rupestre and in a region of "waterworn horizontally bedded sandstone at the soil surface, with damp sand, sedge marsh, exposed rock and waterfalls, the vegetation open scrub to closed low woodland in the drier areas", at 900--1000 m. altitude, in both flower and fruit in March and July.

Additional citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19268 (Ld, N, W--2936296); Irwin, Harley, & Smith 32500 (W--1709902--isotype); Mori, King, Santos, & Hage 12636 (Ld, W--2854280).

*SYNGONANTHUS CAPILLACEUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 349. 1977; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 352--353, pl. 223, fig. 2. 1928 (Ld, N, W).

*SYNGONANTHUS CARACENSIS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 349--350. 1977; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 392--393, pl. 251. 1928 (Ld, N, W).

*SYNGONANTHUS CARACENSIS* var. *GLABRESCENS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 350. 1977; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

*SYNGONANTHUS CAULESCENS* (Poir.) Ruhl.

Additional bibliography: Knuth, Feddes *Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 179 & 181--182. 1927; Hocking, *Excerpt. Bot. A.23:* 388 (1974) and *A.31:* 17 & 18. 1978; Mold., *Phytologia* 42: 39. 1979; Monteiro, Giulietti, Mazzoni, & Castro, *Bol. Bot. Univ. S. Paulo* 7: [43], 45--47, & 58, fig. 72--74. 1979; Angely, *S. Am. Bot. Bibl.* 2: 673 & 678. 1980; Mold., *Phytol. Mem.* 2: 67, 82, 111, 119, 123, 125, 126, 135, 164, 172, 175, 179, 180, 190, 361, 401, 404, 424, 425, 428, 443, & 621. 1980; Mold., *Phytologia* 50: 243 (1982), 51: 245 (1982), 53: 367--368 (1983), 54: 144, 234,

237, 238, & 436 (1983), and 55: 45. 1984.

Additional illustrations: Monteiro, Giuliotti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo 7: 58, fig. 72--74. 1979.

Recent collectors have found this plant growing in wet spots in caatinga, on campo alagado arenoso, in wet dwarf forests, in wet sandy soil of campina, "locally common at pond edges", "locally frequent in shallow water of forest islands on savannas", "infrequent in dense clumps in wet sand near rivers in mist from waterfalls covered with a dense growth of 1 m. tall grass", "in wet areas on savannas leading to a canyon", on park-type natural campo, in Mauritia marshes, in rocky streams with Mauritia flexuosa, along streamsides, on sheer rock walls in the spray of waterfalls, and in drying sand of morichal, at 60--1700 m. altitude in flower in February, April, July, and December, and in fruit in January, February, April, August, October, and November. It has been described as sometimes dominant on esteros.

Collectors have described the plant as having the "base and stems white", the scape [peduncle] medium-green, the leaves light- or mid-green, the inflorescences white or whitish, the bracts light-tan, and the florets white.

Knuth (1927), listing this taxon both under *S. caulescens* and *Paepalanthus caulescens* Kunth, cites Chaffanjon 122 from Bolívar and Pittier 9405 from Carabobo, Venezuela.

The Herb. Mus. Nac. Rio Jan. 126560, cited below, is a mixture with *S. fischerianus* (Bong.) Ruhl., while Sastre 4734 is a mixture with *Utricularia* sp., Schultes & Cabrera 14968 is a mixture with *Paepalanthus lamarckii* Kunth and *P. fasciculatus* f. *tenellus* Herzog, and Steyermark 88759 is a mixture with *Tonina fluviatilis* Aubl.

Material of *S. caulescens* has been misidentified and distributed in some herbaria as *S. akurimensis* Mold., *Paepalanthus lamarckii* Kunth, *P. polytrichoides* var. *glaber* Mold., and *P. sp.*

On the other hand the Smith, Klein, & Hatschbach 14549 and Smith & Reitz 14314, distributed as and previously cited as type-*S. caulescens*, seem actually to be var. *angustifolius* Mold., while the Maguire & Maguire 35435 is var. *bellohorizontinus* Alv. Silv., and Cuatrecasas 7886, Harley, Souza, & Ferreira 10405, Hassler 1061, 3645, 6697, 8483, & 12532, Hatschbach 22504, Hatschbach, Smith, & Klein 28243, Héring, Filgueiras, Mendonça, & Pereira 7420, Herb. FEEMA 21843, Jørgensen 4174, Klein 3470, Macedo 2853, Mattos 4288, 4411, & 4657, Mello Barreto 2585, Mendes Magalhães 2091, Moldenke & Moldenke 19671, Oliveira 67, Pickel 5526, Rambo 30865, 34685, 34865, & 35244, Ramos & Sousa 127, Reitz & Klein 6008, 11593, 16405, & 17472, Ribeiro 199, Riedel 1480, Smith & Klein 8189, 10653, 13689, 13762, & 15502, Smith, Reitz, & Sufri-dini 9390, Tessmann 2746 & 3611, and Vilaga 192 are var. *hatschbachii* Mold., Luteyn, Lebrón-Luteyn, & Steyermark 6263 and Maguire, Wurdack, & Bunting 35909 are var. *hirsutus* Mold., G. Gardner 5253 is var. *longifolius* Mold., Steyermark 76055 & 95741 are var. *proliferus* Mold., Maguire & Wurdack 35752 is *S. glandulosus* Gleason, Cowan & Soderstrom 2154, Maguire & Maguire 40100, and Prance,



Forero, Pena, & Ramos 4488, as well as Mattos 4365 and Steyermark 60494 & 98198 are *S. glandulosus* f. *epapillosus* (Mold.) Mold., and Black 51-11027 is *S. xeranthemoides* (Bong.) Ruhl.

Additional citations: San José: Weston, Weston, & Weston 4295 (Lc). Province undetermined: Pittier 11043 [Ciénaga de Agua Buena] (W--577389, W--936247, W--1080344). COLOMBIA: Magdalena: Haught 2355 (W--1707004). Valle: Cuatrecasas 7823 (W--1796746). Vaupés: Cuatrecasas 6981 (W--1796733); Schultes & Cabrera 14968 in part (W--2198877), 15406 (W--2171592), 15956 (W--2198883). VENEZUELA: Amazonas: J. A. Steyermark 58519 (W--1901777). Anzoátegui: Pittier 14450 (W--1801964); Tamayo 3548 (N). Apure: Davidse & González 13908 (Ld), 15557 (E--2733866). Bolívar: Davidse, Ramia, & Montes 4874 (E--2604033); Liesner & González 11312 (Ld), 11421 (Ld); Luteyn, Lebrón-Luteyn, & Steyermark 6263(N); J. A. Steyermark 88759 in part (W--2435335); Steyermark & Wurdack 45b (W--2168501, W--2407713). Guárico: Aristeguieta & Tamayo 4514 (N); Delascio, Montes, & Davidse 11104 (Ld), 11465 (Ld), 11490 (Ld), 11615 (E--2994263). Monagas: Pursell, Curry, & Kremer 8293 (W--2546260). GUYANA: Tillett & Tillett 45741 (N); Tillett, Tillett, & Boyan 45216 (N). SURINAM: Irwin, Prance, Soderstrom, & Holmgren 55265 (W--2514869). FRENCH GUIANA: Cremers 4834 (Cy), Granville 2688 (Cy, Ld); Hallé 511 (Cy); Hoock 871 (Cy), s.n. [4 Mai 1957] (Cy); Paynal-Roques 20057 (Cy), 20121 (Cy), 21497 (Cy); Sastre 4734 in part (Cy). BRAZIL: Amapá: Irwin, Murça Pires, & Westra 48645 (W--2435312). Amazonas: Janssen 275 (Ld). Bahia: Mori, King, Santos, & Hage 12254 (Ld, W--2854261). Distrito Federal: Héringier 18150 (N, W--2970389); Héringier, Filgueiras, Mendonça, & Pereira 7420 (N); Héringier, Paula, Mendonça, & Salles 291 (N); Mendonça & Pereira 180 (W--2941382). Goiás: Irwin, Souza, & Reis dos Santos 9757 (W--2861728). Mato Grosso: Hatschbach 24562 (W--2705714); Prance, Lleras, & Coêlho 19232 (W--2772578); Silva & Pinheiro 4527 (N). Minas Gerais: Damasio 1505 [Herb. Jard. Bot. Rio Jan. 63770] (W--298653); Duarte 2569 [Herb. Jard. Bot. Rio Jan. 70549] (W--2928652); King & Bishop 8988 (W--2908829); J. G. Kuhlmann 78289 (W--2947267). Pará: Cid, Ramos, Mota, & Rosas 2303 [Herb. Inst. Nac. Pesq. Amaz. 96651] (Ld, N, W--2969533). Paraná: Castellanos 21869 [Herb. Mus. Rio Jan. 126569] (W--2653323); Gottsberger & Poelt s.n. [21.7.1979] (Gr--196-80); Hatschbach & Haas 13689 (Eu); Smith, Reitz, & Caldato 9585 (W--2251569); Stawiarski s.n. [Herb. Mus. Nac. Rio Jan. 126560] in part (W--2653331). Rio Grande do Sul: Pabst 77105 (W--2947266). Santa Catarina: Klein 3470 (N); Reitz & Klein 11593 (N), 16405 (N); Smith & Klein 11097 (W--2251750); Smith, Klein, & Hatschbach 15694 (W--2653312); Ule 583 (W--2699202). São Paulo: Eiten & Eiten 2348 (W--2745129); Eiten & Machado de Campos 1527 (W--2745108); Mimura 268 (W--2555593). PARAGUAY: Casas & Molero 45 (N); Lourteig 2074 (W--2557402). ARGENTINA: Corrientes: Parodi 12611 (W--2935744). MOUNTED CLIPPINGS & ILLUSTRATIONS: Abbiatti, Rev. Mus. La Plata, ser. 2, 6: pl. 2. 1946 (Ld); Miq., Linnaea 19: 126. 1847 (W); Pilger in Engl. & Prantl, Nat. Pflanzenfam. Ergänz. 2 Nachtr. 3 zu 2: fig. 7. 1908 (Ld); Reitz, Fl. Illustr. Catar. I Erioc. pl. 9, p. 85.

1976 (Ld); Schnitzl., Iconogr. 1: 46, fig. 1. 1845 (Ba--381100); Tamayo, Bol. Soc. Cienc. Nat. 22: 149. 1961 (Ld).

*SYNGONANTHUS CAULESCENS* var. *ANGUSTIFOLIUS* Mold.

Additional bibliography: Mold., Phytologia 42: 39. 1979; Angely, S. Am. Bot. Bibl. 2: 678. 1980; Mold., Phytol. Mem. 2: 111, 119, 135, 164, 424, 425, & 621. 1980.

Recent collectors describe the inflorescence heads of this plant as white or whitish and have found it growing in marsh-grassland surrounding morichal and sand dunes and also frequent in corregal pluvial, at 70 m. altitude, in both flower and fruit in March. Hatschbach encountered it in brejo at 500 m. altitude, in flower in February.

Many collections previously regarded and distributed as representing this variety actually prove to be var. *hatschbachii* Mold.

Additional citations: COLOMBIA: Meta: Haught 2747 (W--1707286--isotype). VENEZUELA: Apure: Davidse & González 15945 (Ld). BRAZIL: Mato Grosso: Hatschbach 46170 (Ld). Pará: Cavalcante 2101 (N); M. Silva 2673 (N). Parana: Hatschbach, Smith, & Klein 28243 (W--2653339). MOUNTED CLIPPINGS: Mold., Bull. Torrey Bot. Club 68: 70. 1941 (W).

*SYNGONANTHUS CAULESCENS* var. *BELLOHORIZONTINUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 35: 364. 1977; Mold., Phytol. Mem. 2: 164 & 621. 1980; Mold., Phytologia 54: 234 & 237. 1983.

The Maguires have collected what appears to be this taxon, reporting it common in wet places along streams, at 1500 m. altitude, in both flower and fruit in March. Their collection has previously been regarded as representing typical *S. caulescens* (Poir.) Ruhl.

Additional citations: VENEZUELA: Amazonas: Maguire & Maguire 35435 (N, W--2168952). MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 358. 1928 (Ld, N, W).

*SYNGONANTHUS CAULESCENS* var. *DISCRETIFOLIUS* Mold.

Additional bibliography: Mold., Biol. Abstr. 64: 1838. 1977; Mold., Phytologia 37: 58. 1977; Hocking, Excerpt. Bot. A.31: 17. 1978; Mold., Phytol. Mem. 2: 164 & 621. 1980.

*SYNGONANTHUS CAULESCENS* var. *DOURADENSIS* Mold.

Additional bibliography: Hocking, Excerpt. Bot. A.23: 388. 1974; Mold., Phytologia 35: 420. 1977; Mold., Phytol. Mem. 2: 164 & 621. 1980.

*SYNGONANTHUS CAULESCENS* var. *GARDNERIANUS* Mold., Phytologia 53: 367. 1983.

Bibliography: Mold., Phytologia 53: 367 (1983) and 54: 237. 1983.

Citations: BRAZIL: State undetermined: G. Gardner 5253 (N--type).

*SYNGONANTHUS CAULESCENS* var. *HATSCHBACHII* Mold.

Additional bibliography: Mold., *Phytologia* 42: 39. 1979; Mold., *Phytol. Mem.* 2: 164 & 621. 1980; Mold., *Phytologia* 54: 234, 237, & 238. 1983.

Recent collectors describe this plant as a semi-aquatic, to 20 cm. tall, the inflorescence heads white or whitish, sometimes "no centro um pouco amarelado". They have encountered it in swamps, in brejo, on wet, wet sandy, or marshy campo, in capoeira swamps, in bogs, and in matas de monte, at 750--3200 m. altitude, in both flower and fruit in April and from September to February.

Many of the collections cited below were previously regarded as representing typical *S. caulescens* (Poir.) Ruhl. or its var. *angustifolius* Mold.

Additional citations: COLOMBIA: Meta: Cuatrecasas 7886 (N). BRAZIL: Distrito Federal: Héring, Filgueiras, Mendonça, & Pereira 7420 (N). Matto Grosso: Harley, Souza, & Ferreira 10405 (N); Ramos & Sousa 127 (N). Minas Gerais: Macedo 2853 (N); Mello Barreto 2585 [Herb. Jard. Bot. Belo Horiz. 4795] (N); Mendes Magalhães 2091 [Herb. Jard. Bot. Belo Horiz. 42452] (N); Oliveira 67 [Herb. Jard. Bot. Belo Horiz. 32592] (N); Vilaça 192 [Ribeiro 199; Herb. FEEMA 21843] (Fe). Paraná: Hatschbach 22504 (N); Kummrow 2179 (Ld); Mattos 4288 (N), 4411 (N), 4657 (N); Reitz & Klein 17472 (N, W--2548329), 17620 (N); Smith, Klein, & Hatschbach 14549 (W--2573021); Tessmann 2746 (N), 3611 (N). Rio Grande do Sul: Rambo 30865 (N), 34675 (N), 34865 (N), 35244 (N). Santa Catarina: Klein 3470 (N); Reitz & Klein 6008 (W--2268658), 11593 (N), 16405 (N); Smith & Klein 8186 (W--2251355), 10653 (W--2251700), 13689 (W--2573024), 13762 (W--2573022), 14314 (W--2573023), 15502 (W--2653314). Sao Paulo: Moldenke & Moldenke 19671 (N); Pickel 5526 (N). State undetermined: Riedel 1480 (T). PARAGUAY: Hassler 1061 (N, N), 3645 (N), 6697 (N), 8483 (N), 12532 (N); J. Jörgensen 4174 (N).

*SYNGONANTHUS CAULESCENS* var. *HIRSUTUS* Mold., *Phytologia* 53: 367--368. 1983.

Bibliography: Mold., *Phytologia* 53: 367--368 (1983) and 54: 234. 1983.

Luteyn and his associates encountered this plant in wet dwarf forests, at 1310 m. altitude, in both flower and fruit in November. The collections cited below were previously regarded and distributed as typical *S. caulescens* (Poir.) Ruhl.

Citations: VENEZUELA: Bolívar: Luteyn, Lebrón-Luteyn, & Steyermark 6263 (W--2939059); Maguire, Wurdack, & Bunting 35909 (Ld--photo of type, W--2168964--type).

*SYNGONANTHUS CAULESCENS* var. *LONGIFOLIUS* Mold., *Phytologia* 51: 245. 1982.

Bibliography: Mold., *Phytologia* 51: 245 (1982) and 54: 234. 1983.

Delascio and his associates refer to this plant as having "hojas sublanosas grisáceas" and encountered the plant at 100 m. altitude, in both flower and fruit in December.

Citations: VENEZUELA: Guárico: *Delascio, Montes, & Davidse* 11436 (Ld). FRENCH GUIANA: *Cremers* 4833 (Cy--type).

*SYNGONANTHUS CAULESCENS* f. *LONGIPES* Mold.

Additional bibliography: Mold., *Biol. Abstr.* 61: 4884. 1976; Mold., *Phytologia* 37: 58. 1977; Hocking, *Excerpt. Bot. A.* 31: 18. 1978; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

*SYNGONANTHUS CAULESCENS* var. *OBTUSIFOLIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 421. 1977; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 358. 1928 (Ld, N, W).

*SYNGONANTHUS CAULESCENS* var. *PROCERUS* (Klotzsch) Mold.

Additional bibliography: Mold., *Phytologia* 35: 421--422. 1977; Mold., *Phytol. Mem.* 2: 119, 164, 401, 428, 443, & 621. 1980.

Recent collectors have found this plant in disturbed sandy wet places, in both flower and fruit in April, and describe the inflorescence heads as white.

Additional citations: BRAZIL: Distrito Federal: *Mendonça & Pereira* 180 (N).

*SYNGONANTHUS CAULESCENS* var. *PROLIFERUS* Mold.

Additional bibliography: Mold., *Phytologia* 42: 39. 1979; Angely, *S. Am. Bot. Bibl.* 2: 673. 1980; Mold., *Phytol. Mem.* 2: 164 & 621. 1980; Mold., *Phytologia* 54: 234 & 237. 1983.

Steyermark describes the leaves of this plant as long, narrow, and attenuate-acute, deep-green in color. He found it growing on wet rocks at the base of waterfalls and in cracks of granitic boulders by cascades, at 300--550 m. altitude, in both flower and fruit in April and July. His collections have hitherto been regarded as and distributed as typical *S. caulescens* (Poir.) Ruhl.

Additional citations: VENEZUELA: Bolívar: *J. A. Steyermark* 76055 (W--2407784), 95741 (W--2584707).

*SYNGONANTHUS CENTAUROIDES* (Bong.) Ruhl.

Additional bibliography: Mold., *Phytologia* 35: 423--425 (1977), 38: 31 & 44 (1977), and 38: 183 & 190. 1978; Mold., *Phytol. Mem.* 2: 164, 425, 498, & 621. 1980.

Recent collectors report this species common among grasses in "vegetação de catinga amazônica baixa".

Additional citations: BRAZIL: Mato Grosso: *Murça Pires & Santos* 16382 (N). MOUNTED CLIPPINGS: Bong., *Ess. Monog. Erioc.* 35. 1831 (Ld, N, W).

*SYNGONANTHUS CENTAUROIDES* var. *SUBAPPRESSUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 35: 424--425. 1977; Mold., *Phytol. Mem.* 2: 164 & 621. 1980.

*SYNGONANTHUS CENTAUROIDES* var. *TERETIPES* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 425. 1977; Mold.,

Citations: MOUNTED CLIPPINGS: *Alv. Silv.*, *Fl. Mont.* 1: 395--396. 1928 (Ld, N, W).

*SYNGONANTHUS CHAPADENSIS* *Alv. Silv.*

Additional bibliography: Mold., *Phytologia* 35: 425 (1977) and 37: 86. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Citations: MOUNTED CLIPPINGS: *Alv. Silv.*, *Fl. Mont.* 1: 330--331. 1928 (Ld, N, W).

*SYNGONANTHUS CHRYSANTHUS* (Bong.) Ruhl.

Additional bibliography: Mold., *Phytologia* 42: 39--40. 1979; Angely, *S. Am. Bot. Bibl.* 2: 678. 1980; Mold., *Phytol. Mem.* 2: 164, 402, 405, 443, & 622. 1980.

Additional citations: BRAZIL: Rio Grande do Sul: *Vidal IV.339* [*Herb. Mus. Nac. Rio Jan.* 105081] (W--2653325), *IV.481* [*Herb. Mus. Nac. Rio Jan.* 126557] (W--2653224). Santa Catarina: *Reitz 4825* [*Herb. Barb. Rod.* 6345] (W--2321364), 5567 [*Herb. Barb. Rod.* 6338] (W--2321370); *Smith & Reitz 5874* (W--2120178); *Ule 1386* (W--2699217). MOUNTED ILLUSTRATIONS: *Reitz, Fl. Ilust. Catar. I Erioc.* 85. 1976 (Ld).

*SYNGONANTHUS CHRYSANTHUS* var. *CASTRENSIS* Mold.

Additional bibliography: Mold., *Phytologia* 42: 40. 1979; Angely, *S. Am. Bot. Bibl.* 2: 678. 1980; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Additional citations: BRAZIL: Parana: *Vidal III.74* [Araujo s. n.; *Herb. Mus. Nac. Rio Jan.* 77012] (W--2700822--fragment & photo of type).

*SYNGONANTHUS CHRYSOLEPIS* *Alv. Silv.*

Additional bibliography: Mold., *Phytologia* 35: 428. 1977; Monteiro, Giulietti, Mazzoni, & Castro, *Bol. Bot. Univ. S. Paulo* 7: [43], 45--48, 53, & 58, fig. 71. 1979; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Additional illustrations: Monteiro, Giulietti, Mazzoni, & Castro, *Bol. Bot. Univ. S. Paulo* 7: 58, fig. 71. 1979.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: *Alv. Silv.*, *Fl. Mont.* 1: 390--391, pl. 249. 1928 (Ld, N, W).

*SYNGONANTHUS CILIATUS* *Alv. Silv.*

Additional bibliography: Mold., *Phytologia* 35: 428--429. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: *Alv. Silv.*, *Fl. Mont.* 1: 391--392, pl. 261. 1928 (Ld, N, W).

*SYNGONANTHUS CIPOENSIS* Ruhl.

Additional bibliography: Mold., *Phytologia* 35: 429 & 443. 1977; Mold., *Phytol. Mem.* 2: 164, 443, & 622. 1980.

*SYNGONANTHUS CIRCINNATUS* (Bong.) Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 68. 1977; Hocking, *Excerpt. Bot. A.31*: 18. 1978; Mold., *Phytol. Mem.* 2: 164 &

622. 1980.

*SYNGONANTHUS COMOSUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 42: 40. 1979; Mold., *Phytol. Mem.* 2: 119, 164, & 622. 1980; Mold. in Harley & Mayo, *Toward Checklist Fl. Bahia* 76. 1980.

*SYNGONANTHUS COMOSUS* var. *HARLEYI* Mold.

Additional bibliography: Hocking, *Excerpt. Bot. A.* 28: 170. 1976; Mold., *Phytologia* 35: 431. 1977; Mold., *Phytol. Mem.* 2: 164. & 622. 1980; Mold. in Harley & Mayo, *Toward Checklist Fl. Bahia* 76. 1980.

Mori & Boom encountered this plant in wet areas of cerrado, in flower in June.

Additional citations: BRAZIL: Bahia: Harley, Renvoize, Erskine, Brighton, & Pinheiro in Harley 15952 (W--2777071--isotype); Mori & Benton 13140 (Ld, N); Mori & Boom 14412 (Ld, N).

*SYNGONANTHUS COMPACTUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 68 & 497. 1977; Mold., *Phytol. Mem.* 2: 135, 164, & 622. 1980.

Recent collectors describe this species as a very abundant small plant forming the ground cover in sandy soil of campina and found it in both flower and fruit in June.

Additional & emended citations: BRAZIL: Amazonas: Calderón, Monteiro, & Guedes 2691 (Ld, W--2931232); Ule 6175 [Macbride photos 10679] (Ld--photo of type).

*SYNGONANTHUS COSTATUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 35: 432. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

*SYNGONANTHUS COWANI* Mold.

Additional bibliography: Mold., *Phytologia* 35: 432--433 (1977) and 44: 215--216. 1979; Mold., *Phytol. Mem.* 2: 111, 119, 443, & 622. 1980; Mold., *Phytologia* 51: 245 & 302. 1982.

Recent collectors refer to this plant as a frequent diminutive herb on wet open savannas, at 120 m. altitude, and have found it in flower in November and both in flower and fruit in February. Huber speaks of it as "Bastante común al borde de los pequeños montículos, hasta 6--7 cm de alto", the flowers white, at 100 m. altitude.

The Maguire, Cowan, & Wurdack 30780, Maguire & Wurdack 34532, and Maguire, Wurdack, & Bunting 36740, previously cited by me as typical *S. cowani*, are now regarded as representing its var. *tabulatus* Mold.

Additional citations: VENEZUELA: Amazonas: O. Huber 1635 (Ld), 4839 (Ld); Huber & Tillett 3000 (Ld); Maguire, Cowan, & Wurdack 30466 (W--2046498--isotype); Maguire & Wurdack 34569 (W--2168932); Maguire, Wurdack, & Bunting 36596a (W--2168979); Thomas & Rogers 2594 (N).

*SYNGONANTHUS COWANI* var. *INVOLUCRATUS* Mold., *Phytologia* 51: 302. 1982.

Bibliography: Mold., *Phytologia* 51: 302. 1982.

Citations: VENEZUELA: Amazonas: *O. Huber 4844* (Ld--type).

*SYNGONANTHUS COWANI* var. *LONGIPEDUNCULATUS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 433. 1977; Mold., *Phytol. Mem.* 2: 111 & 622. 1980.

Additional citations: COLOMBIA: Vaupés: *Maguire, Wurdack, & Bunting 36290* (W--2168970--isotype).

*SYNGONANTHUS COWANI* var. *SIMPLEX* Mold., *Phytologia* 51: 245. 1982.

Bibliography: Mold., *Phytologia* 51: 245. 1982.

Citations: VENEZUELA: Amazonas: *O. Huber 5096* (Ld--type).

*SYNGONANTHUS COWANI* var. *TABULATUS* Mold., *Phytologia* 44: 215--216. 1979.

Bibliography: Mold., *Phytologia* 44: 215--216. 1979; Mold., *Phytol. Mem.* 2: 119 & 622. 1980.

Collectors describe this plant as locally frequent, locally occasional, or even very common on open savannas, at 95--150 m. altitude, referring to it as an herb, 5--7 cm. tall, the inflorescence heads grayish-white, and the florets white, in both flower and fruit from January to March.

The material cited below was mostly previously regarded and cited as typical *S. cowani* Mold.

Citations: VENEZUELA: Amazonas: *O. Huber 1684* (Ld--type), 3361 (Ld); *Huber & Medina 5802* (Ld); *Huber & Tillett 2791* (Ld), 2815 (Ld), 2915 (Ld), 3029, (Ld), 3067 (Ld); *Maguire, Cowan, & Wurdack 30780* (N, W); *Maguire & Wurdack 34532* (N, W--2168929); *Maguire, Wurdack, & Bunting 37640* (N, W--2169001).

*SYNGONANTHUS CRASSINERVIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 433--434. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 345--346, pl. 219. 1928 (Ld, N, W).

*SYNGONANTHUS CRASSINERVIUS* var. *GLABRESCENS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 433--434. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

*SYNGONANTHUS CRISPUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 434. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 358--359, pl. 226. 1928 (Ld, N, W).

*SYNGONANTHUS CRISPUS* var. *ITACAMBIRENSIS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 434. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 359.

1928 (Ld, N, W).

*SYNGONANTHUS CURRALENSIS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 434. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980; Mold. in Harley & Mayo, *Toward Checklist Fl. Bahia* 76. 1980; Hocking, *Excerpt. Bot. A.36*: 23. 1981; Mold., *Phytologia* 50: 215, 248, & 270. 1982.

Citations: BRAZIL: Bahia: Harley, Renvoize, Erskine, Brighton, & Pinheiro in Harley 16661 (W--2777067--isotype). MOUNTED ILLUSTRATIONS: Mold., *Phytologia* 31: 488. 1975 (Ld).

*SYNGONANTHUS CURRALENSIS* var. *HARLEYI* Mold., *Phytologia* 43: 356. 1979.

Bibliography: Mold., *Phytologia* 43: 356. 1979; Mold., *Phytol. Mem.* 2: 164 & 622. 1980; Mold. in Harley & Mayo, *Toward Checklist Fl. Bahia* 76. 1980; Hocking, *Excerpt. Bot. A.36*: 23. 1981.

The original collectors of this plant describe it as a rosette herb with rigid gray leaves and gray scapes [peduncles] to 25 cm. tall and the involucre bractlets "palest-brown". They have found it growing at 1000 m. altitude, in both flower and fruit in March.

Citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19306 (N--isotype).

*SYNGONANTHUS CURRALENSIS* var. *PAUCIFOLIUS* Mold., *Phytologia* 50: 215. 1982.

Bibliography: Mold., *Phytologia* 50: 215, 248, & 270. 1982.

Mori & Boom have encountered this plant in dry sandy soil on campo rupestre, at 1000 m. altitude, in both flower and fruit in June.

Citations: BRAZIL: Bahia: Mori & Boom 14471 (Ld, N), 14548 (Ld--type, N--isotype).

*SYNGONANTHUS DEALBATUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 434--435. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 385--386, pl. 245. 1928 (Ld, N, W).

*SYNGONANTHUS DEALBATUS* var. *MINOR* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 435. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 386. 1928 (Ld, N, W).

*SYNGONANTHUS DECORUS* Mold.

Additional bibliography: Mold., *Phytologia* 37: 68. 1977; Mold., *Phytol. Mem.* 2: 164 & 622. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Mold., *Phytologia* 32: 486, fig. 2. 1976 (Ld)

*SYNGONANTHUS DENSIFLORUS* (Körn.) Ruhl.

Additional bibliography: Mold., *Phytologia* 42: 40 . 1979;



Mold., *Phytol. Mem.* 2: 165, 175, 443, & 622. 1980; Mold., *Phytologia* 48: 291 (1981), 50: 248 & 270 (1982), and 55: 43. 1984.

Hatschbach found this plant growing in brejo (sedge meadow).

Additional citations: BRAZIL: Goiás: *Hatschbach 43803* (Ld, W--2932036); *Irwin, Maxwell, & Wesshausen 21414* (W--2570160A). Minas Gerais: *Macedo 1835* (W--2196717).

*SYNGONANTHUS DENSIFLORUS* var. *BREVIPES* Mold., *Phytologia* 55: 43. 1984.

Bibliography: Mold., *Phytologia* 55: 43. 1984.

Citations: BRAZIL: Distrito Federal: *Héring, Filgueiras, Mendonça, & Pereira 7488* (N--type).

*SYNGONANTHUS DENSIFLORUS* var. *GLABRESCENS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 437--438. 1977; Mold., *Phytol. Mem.* 2: 165, 175, 443, & 622. 1980.

Additional citations: BRAZIL: Mato Grosso: *Irwin, Souza, Gear, & Santos 17022* (W--2709899--isotype).

*SYNGONANTHUS DENSIFLORUS* var. *GLABRIFOLIUS* Mold.

Additional bibliography: Mold., *Phytologia* 42: 40. 1979; Mold., *Phytol. Mem.* 2: 165 & 622. 1980.

Additional citations: BRAZIL: Goiás: *Irwin, Anderson, Stieber, & Lee 34606* (W--2709901--isotype).

*SYNGONANTHUS DENSIFLORUS* var. *LONGIFOLIUS* Mold., *Phytologia* 48: 291. 1981.

Bibliography: Mold., *Phytologia* 48: 291 (1981) and 50: 248 & 270. 1982.

Citations: BRAZIL: Pará: *Plowman, Davidse, Rosa, Rosário, & Santos 9090* (Ld--type, N--isotype).

*SYNGONANTHUS DENSIFOLIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 37: 68. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980; Mold., *Phytologia* 48: 291 (1981) and 50: 245 & 270. 1982.

King & Bishop found this plant locally abundant on sandy flats, at 3300--3800 feet altitude, in flower in February, describing the inflorescence heads as white.

Additional citations: BRAZIL: Goiás: *Irwin, Santos, Souza, & Fossêca 24648* (W--2582510A); *King & Bishop 8900* (W--2922394).

MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., 1: 319--320, pl. 203. 1928 (Ld, N, W).

*SYNGONANTHUS DENSIFOLIUS* var. *MAJUS* Mold.

Additional bibliography: Mold., *Phytologia* 35: 439. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980.

Additional citations: BRAZIL: Goiás: *Irwin, Harley, & Smith 32982* (W--2709605--isotype).

*SYNGONANTHUS DENSIFOLIUS* var. *PILOSIOR* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 439--440. 1977;

Mold., Phytol. Mem. 2: 165 & 622. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 320—321. 1928 (Ld, N, W); Dawson, Los Angeles Co. Mus. Contrib. Sci. 7: 5, fig. 1 right. 1957 (Ld, W).

*SYNGONANTHUS DENSIFOLIUS* var. *VENEZUELENSIS* Mold., Phytologia 48: 291. 1981.

Bibliography: Mold., Phytologia 48: 291 (1981) and 50: 245 & 270. 1982.

Calderón and his associates describe this plant as growing to 30 cm. tall, with "large white inflorescences", and found it common in white sand campina, in both flower and fruit in June.

Citations: VENEZUELA: Amazonas: Huber & Tillett 2918 (Ld--type). BRAZIL: Amazônas: Calderón, Monteiro, & Guedes 2580 (Ld, W--2931235).

*SYNGONANTHUS DENSUS* (Körn.) Ruhl.

Additional bibliography: Mold., Phytologia 42:40. 1979; Mold., Phytol. Mem. 2: 119, 165, & 622. 1980; Mold., Phytologia 53: 264 (1983) and 54: 234. 1983.

Recent collectors describe this plant as a tufted herb. the inflorescence heads cream-color or white. They have found it growing in wet sandy soil, on sandy campo, in restinga and campo rupestre, and on open campina, in both flower and fruit in March, June, and December. Davidson & Martinelli encountered it in "open places in hot white sand among low restinga vegetation surrounded by mata alta on terra firme".

Material of *S. densus* has been misidentified and distributed in some herbaria as *Eriocaulon* sp. and the Maguire 33231 collection, cited below, was previously incorrectly reported by me as the very closely related *S. pakaraimensis* Mold.

Additional citations: VENEZUELA: Bolívar: B. Maguire 33231 (N, W--2168902). BRAZIL: Amazônas: A. B. Anderson 308 (N); Ongley & Ramos P.21771 (N, W--2935294); Plowman, Davis, & Nelson 12657 (N); Prance, Berg, Bisby, Steward, Monteiro, & Ramos 17932 (W--2772582); Prance, Coêlho, Harley, Kubitzki, Maas, Sæstre, & Smith 11688 (W--2801673); Prance, Coêlho, & Monteiro 14843 (W--2801669); Prance, Philcox, Rodrigues, Ramos, & Farías 5144 (W--2573049A); Prance, Ramos, Farías, & Philcox 4834 (W--2570375A). Bahia: Brito & Vinha 106 (Ld). Goiás: W. R. Anderson 8220 (W--2755405); Hatschbach 4371 (Ld), 43710 (W--2932033); Pereira 23 (W--2951310). Pará: Campbell, Ongley, Ramos, Monteiro, & Nelson P.22552 (Ld, N, W--2952976); Cid, Ramos, & Mota 1218 [Herb. Inst. Nac. Pesq. Amaz. 94437] (Ld, N); Davidson & Martinelli CD.10619 (Ld).

*SYNGONANTHUS DENSUS* var. *PUMILUS* Mold.

Additional bibliography: Mold., Phytologia 35: 441. 1977; Mold., Phytol. Mem. 2: 119, 165, & 622. 1980.

Liesner found this plant growing in white sand podzolic soil in scrubby forests, at 120 m. altitude, fruiting in November.

Additional citations: VENEZUELA: Amazonas: Liesner 3914 (Ld).

*SYNGONANTHUS DIAMANTINENSIS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 441. 1977; Mold., *Phytol. Mem.* 2: 165, 443, & 622. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 315--317, pl. 20C. 1928 (Ld, N, W).

*SYNGONANTHUS DROUETII* L. B. Sm.

Additional bibliography: Mold., *Phytologia* 42: 42. 1979; Mold., *Phytol. Mem.* 2: 119, 165, 425, & 622. 1980; Mold., *Phytologia* 54: 68. 1983.

Recent collectors describe this plant as 7 cm. tall, with cream-colored inflorescence heads, and have found it growing on dry campina and commonly on open white sand campinas, in fruit in October and both in flower and fruit in August.

The *Cid, Buck, Nelson, Almeida, Mota, & Lima* 524 collection, cited below, was previously mistakenly regarded as *S. elegans* var. *elanatus* Ruhl.

Additional citations: BRAZIL: Amazonas: *Cid, Buck, Nelson, Almeida, Mota, & Lima* 267 (Ld, N), 524 (N). Pará: *W. R. Anderson* 10929 (W--2755404); *Daly, Callejas, Silva, Taylor, Rosário, & Santos* 858 (Ld); *Drouet* 2112 (W--1673749--isotype).

*SYNGONANTHUS DROUETII* var. *PARVICEPS* Mold., *Phytologia* 54: 68. 1983.

Bibliography: Mold., *Phytologia* 54: 68. 1983.

Collectors have encountered this plant on wet savannas, in both flower and fruit in November.

Citations: VENEZUELA: Amazonas: *W. W. Thomas* 2638 (Ld--type); *Thomas & Rogers* 2609 (N).

*SYNGONANTHUS DUIDAE* Mold.

Additional bibliography: Mold., *Phytologia* 35: 442--443. 1977; Mold., *Phytol. Mem.* 2: 119 & 622. 1980; Mold., *Phytologia* 51: 245 & 302 (1982) and 54: 139. 1983.

Recent collectors refer to this plant as a colonial herb, 10--15 cm. tall, with rich-green leaves and white inflorescence heads, "forming tufts of several plants" and frequent in open spaces on savannas. at 1100--2100 m. altitude, in both flower and fruit in January, February, and October.

Additional citations: VENEZUELA: Amazonas: *Farinas, Velasquez, & Medina* 364 (N); *O. Huber* 4275 (Ld); *Steyermark, Brewer-Carías, & Liesner* 124528 (E--2901869, N); *Steyermark, Guariglia, Holmgren, Luteyn, & Mori* 126395 (Ld). MOUNTED CLIPPINGS: Mold.; *Fieldiana Bot.* 28: 127--128, 1951 (W).

*SYNGONANTHUS DUIDAE* var. *LONGIFOLIUS* Mold., *Phytologia* 51: 245. 1982.

Bibliography: Mold., *Phytologia* 51: 245 & 302 (1982) and 54: 139. 1983.

By error, this taxon was republished by me in 1983, but based on the same type collection, a collection which previously had been regarded mistakenly as representing *Leiothrix steyermarkii* Mold.

Citations: VENEZUELA: Bolívar: *Koyama & Agostini 7515 (N--type)*.

*SYNGONANTHUS EBURNEUS* (Körn.) Ruhl.

Additional bibliography: Mold., *Phytologia* 35: 443--444. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980; Mold. in *Harley & Mayo, Toward Checklist Fl. Bahia 76*. 1980.

Additional citations: BRAZIL: Bahia: *Harley, Renvoize, Erskine, Brighton, & Pinheiro in Harley 17149 (W--2791568)*.

*SYNGONANTHUS EGLERI* Mold.

Additional bibliography: Mold., *Phytologia* 35: 444. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980; Mold., *Phytologia* 52: 131. 1982.

*SYNGONANTHUS EGLERI* var. *POMBOSENSIS* Mold., *Phytologia* 52: 131. 1982.

Bibliography: Mold., *Phytologia* 52: 122 & 131. 1982.

Citations: BRAZIL: Amazonas: *Calderón, Monteiro, & Guedes 2608 (Ld--type, W--2931238--isotype, W--2931239--isotype)*.

*SYNGONANTHUS ELEGANS* (Bong.) Ruhl.

Additional bibliography: Cronquist, *How Know Seed Pl.* 124--125, fig. 265. 1979; Mold., *Phytologia* 42: 40. 1979; Monteiro, *Giulietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo* 7: [43], 45--47, & 53. 1979; Mold., *Phytol. Mem.* 2: 165, 361, & 622. 1980; Mold., *Phytologia* 54: 237. 1983.

Additional illustrations: Cronquist, *How Know Seed Pl.* fig. 265. 1979.

The *Cid, Buck, Nelson, Almeida, Mota, & Lima 524* collection, distributed as *S. elegans*, actually proves to be *S. drouetii* L. B. Sm., an Amazonian species.

Additional citations: BRAZIL: Minas Gerais: *Maguire, Mendes Magalhães, & Maguire 49135 (W--2435298)*. MOUNTED CLIPPINGS & ILLUSTRATIONS: *Abbiatti, Rev. Mus. La Plata, ser. 2, 6: 337*. 1946 (Ld); *Forstner, Verhandl. Zool. Bot. Gesel. Wien* 112: 90. 1972 (Ld); *Kunth, Enum. Pl.* 3: 526--527 & 579. 1841 (Ld, N, W).

*SYNGONANTHUS ELEGANS* var. *CANESCENS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 446--447. 1977; Monteiro, *Giulietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo* 7: [43], 45--47, & 53. 1979; Mold., *Phytol. Mem.* 2: 165 & 622. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 365. 1928 (Ld, N, W).

*SYNGONANTHUS ELEGANS* var. *ELANATUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 37: 68, 69, 487, & 488 (1977) and 38: 27. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980.

Recent collectors have encountered this plant on sandy campos and campinas, as well as in sandy soil of campo cerrado, in both flower and fruit in January, March, and August.

The *Cid & al. 524*, distributed as this taxon, is *S. drouetii*.

Additional citations: BRAZIL: Goiás: *Hatschbach 42136* (Ld, N). Minas Gerais: *Hatschbach 40827* (Ld, N, W--2850782); *Irwin, Santos, Souza, & Fonséca 22019* (W--2582563A).

*SYNGONANTHUS ELEGANTULUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 42: 40--41. 1979; Mold., *Phytol. Mem.* 2: 165 & 622. 1980; Mold. in *Harley & Mayo, Toward Checklist Fl. Bahia 77*. 1980; Mold., *Phytologia* 52: 232 (1982) and 54: 237. 1983.

Recent collectors describe this plant as a wiry-scaped herb, to 20 cm. tall, with gray leaves, pale-brown involucral bractlets, and white florets. They have found it growing on natural campos and in marshes on the "lower slopes of sandstone, metamorphic, and quartzite rock outcrops with associated marsh and damp flushes", at 1500 m. altitude, in fruit in March and September.

Additional citations: BRAZIL: Bahia: *Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19774* (Ld, N, W--2936300); *Santos, Mori, & Mattos Silva 3356* (Ld). Minas Gerais: *Hatschbach 41373* (N, W--2840051); *Irwin, Harley, & Onishi 29129* (W--2709602). Rio de Janeiro: *Araujo & Maciel 3538* [Herb. FEFMA 16181] (Ld).

*SYNGONANTHUS ELEGANTULUS* var. *GLABRIFOLIUS* Mold., *Phytologia* 52: 232. 1982.

Bibliography: Mold., *Phytologia* 52: 232 (1982) and 54: 237. 1983.

Citations: BRAZIL: Amazonas: *Calderón, Monteiro, & Guedes 2564* (Ld--type, W--2931220--isotype, W--2931222--isotype).

*SYNGONANTHUS ELEGANTULUS* var. *GLAZIOVII* Mold.

Additional bibliography: Mold., *Biol. Abstr.* 64: 5384. 1977; Mold., *Phytologia* 37: 68 & 69. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980.

Recent collectors have encountered this plant on campo rupes-  
tre, at 1000 m. altitude, in both flower and fruit in July.

Additional citations: BRAZIL: Bahia: *Mori, King, Santos, & Hage 12415* (Ld, W--2854269).

*SYNGONANTHUS ENSIFOLIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 449. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 383--385, pl. 244. 1928 (Ld, N, W).

*SYNGONANTHUS ERECTIFOLIUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 449--450 (1977) and 38: 126. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Fl. Mont.* 1: 365--366, pl. 231. 1928 (Ld, N, W).

*SYNGONANTHUS ERIOPUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 450. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 362--363, pl. 229. 1928 (Ld, N, W).

*SYNGONANTHUS ERIOPUS* var. *APPRESSUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 35: 450. 1977; Mold., Phytol. Mem. 2: 165 & 622. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 363. 1928 (Ld, N, W).

*SYNGONANTHUS EUSCHEMUS* Ruhl.

Additional bibliography: Mold., Phytologia 35: 450--451. 1977; Mold., Phytol. Mem. 2: 165 & 622. 1980.

Additional citations: BRAZIL: Goiás: W. R. Anderson 8039 (W--2755403); Irwin, Grear, Souza, & Reis dos Santos 13298 (W--2861729).

*SYNGONANTHUS FERRENSIS* Alv. Silv.

Additional bibliography: Mold., Phytologia 35: 451--452 (1977) and 37: 96, 494, & 495. 1977; Mold., Phytol. Mem. 2: 165 & 622. 1980.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 355--356, pl. 225. 1928 (Ld, N, W).

*SYNGONANTHUS FERTILIS* (Körn.) Ruhl.

Additional synonymy: *Syngonanthus humboldtii* var. *elongatus* Mold. in Maguire & al., Mem. N. Y. Bot. Gard. 8: 101. 1953.

Additional bibliography: Knuth, Feddes Repert. Spec. Nov. Beih. 43: [Init. Fl. Venez.] 180. 1927; Mold., Phytologia 4: 321 (1953) and 37: 90. 1977; Hocking, Excerpt. Bot. A.33: 5 & 165. 1979; Mold., Phytologia 42: 38 & 41 (1979) and 47: 17. 1980; Mold., Phytol. Mem. 2: 111, 119, 125, 165, 443, 622, & 627. 1980; Mold., Phytologia 50: 245 & 262 (1982), 52: 19 (1982), and 54: 234 & 235. 1983.

Recent collectors describe this plant as a frequent or abundant herb, 20--30 cm. tall, with white "sunburst" inflorescences. They have found it growing on savannas and sabanitas, in wet situations generally, or wet or open wet grass savannas on sandstone, in open grassy seepage areas, in temporarily dry creek beds and on periodically flooded savannas, on quartzite rock outcrops, in sandy soil with cerrado, in the transition zone from fine white sand to moist fine sand and clay, abundant in morichal, on "savana entre morros de pedra", "en la sabana y en pequeños charcos", in periodically burned cerrado, among sandstone rocks in typical cerrado vegetation, and scattered in open wet sand with *Bulbostylis*, at 90--1300 m. altitude, in flower from October to June, in fruit in January and November, and both in flower and fruit in February, August, and October. Maguire refers to it as an infrequent to common annual of damp sandy places on savannas, while Davidse calls it "a moss-like plant with large umbels of globose inflorescences with white flowers, on savannas with scattered trees including *Curatella* and with many large outcropping dark-colored boulders".

Knuth (1927) cites Gaillard 174 from Bolívar, Venezuela. A vernacular name recorded for the species in Surinam is "tùrepan-aimù".

Material of typical *S. fertilis* has been misidentified, distributed in some herbaria, and even cited by me in previous installments of these notes as *S. humboldtii* (Kunth) Ruhl. and *S. humboldtii* var. *glandulosus* Gleason. On the other hand, the Bastos & al. 101 and Ducke 12025, distributed and cited by me as *S. fertilis*, actually are *S. bellus* Mold., while Agostini 256 & 348, Maguire 33698, Maguire, Wurdack, & Bunting 36389, and Steyermark & Wurdack 21 are *S. fertilis* var. *orinocensis* (Mold.) Mold., and Kuhlmann 1630 is *S. humboldtii* (Kunth) Ruhl.

Additional & emended citations: VENEZUELA: Amazonas: Davidse 2752 (Ld, N); O. Huber 466 (Ld, N), 1881 (Ld); Huber & Tillett 3033 (Ld); Huber, Tillett, & Davidse 3769 (Ld); Maguire, Cowan, & Wurdack 30558 (N, Ve); Maguire, Wurdack, & Maguire 41658 (N, S, W--2279295); Phelps & Hitchcock 460 (N); Steyermark & Redmond 112801a (N); Thomas & Rogers 2593 (N). Bolívar: Huber, Alarcon, & Barreat 6726 (Ld); Koyama & Agostini 7273 (N, S, W--2575528A); Lasser 1762 (N); B. Maguire 33698 (N), 33699 (N); J. A. Steyermark 94182 (Lw, Mu, N, W--2584280); Vareschi & Foldats 4629 (N); Wurdack & Monachino 39948 (Mu, N, S, S). SURINAM: Oldenburger, Norde, & Schulz ON.558 (N). BRAZIL: Amazonas: Prance, Maas, Woolcott, Monteiro, & Ramos 16185 (Ld, Mu, N, W--2759068); Rosa & Lira 2257 (N). Goiás: W. R. Anderson 10018 (N, W--2927286); Haas, Haas, & Belem 303 [Herb. Brad. 50344] Mato Grosso: Malme 3342 (N); Murça Pires & Santos 16317 (N); Rosa & Santos 1954 (N, W--2934337). Pará: Murça Pires 16068 (N, N); Murça Pires, Black, Wurdack, & Silva 6078 (N); 6188 (N); Prance, Silva, Berg, Henderson, Nelson, Balick, Bahia, & Reis dos Santos P.25188 (N, N, W--2868545), P.25247 (N, N, W--2868552). Piauí: G. Gardner 2960 (W--936272--cotype). Rondônia: Rosa, Murça Pires, & Rodrigues 894 (N).

*SYNGONANTHUS FERTILIS* var. *FUSCUS* Mold.

Additional bibliography: Hocking, Excerpt. Bot. A.33: 5 & 165. 1979; Mold., Phytologia 42: 41. 1979; Mold., Phytol. Mem. 2: 111, 165, 622, & 627. 1980; Mold., Phytologia 50: 245. 1982.

Recent collectors describe this plant as an herb, 20 cm. tall, the inflorescence heads light-gray, and the flowers white. They have found it locally abundant in wet sandy areas of savannas, in shallow pools in rocky riverbeds, and in wet sand of ditches on exposed sandstone shields, at 200--1200 m. altitude, in flower in January, March, August, and September.

Material of this variety has been misidentified, distributed in some herbaria, and even cited by me in previous installments of these notes as *S. humboldtii* (Kunth) Ruhl. and *S. humboldtii* var. *glandulosus* Gleason.

Additional & emended citations: COLOMBIA: Vaupés: Zarucchi 1998 (N, W--2832341). VENEZUELA: Amazonas: Cardenas & Pyykkö 1395 (Ld); O. Huber 3192 (Lc), 3450 (Lc); Huber & Tillett 2993

(Ld); J. A. Steyermark 57857 (N). Bolívar: Koyama & Agostini 7351 (N, S), 7516 (Ld, N), 7528 (N).

*SYNGONANTHUS FERTILIS* var. *GLANDULOSUS* (Gleason) Mold., Phytol. Mem. 2: 111, 443, & 622 hyponym. 1980; comb. nov.

Synonymy: *Syngonanthus humboldtii* var. *glandulosus* Gleason, Bull. Torrey Bot. Club 57: 327. 1931. *Syngonanthus holboldtii* var. *glandulosus* Gleason ex Mold. in Maguire & al., Mem. N. Y. Bot. Gard. 8: 101 sphalm. 1953.

Bibliography: Gleason, Bull. Torrey Bot. Club 58: 327. 1931; Fedde & Schust., Justs Bot. Jahresber. 59 (2): 20. 1939; Mold. in Gleason & Killip, Brittonia 3: 159. 1939; Mold., Alph. List Cit. 1: 92. 1946; Mold., Known Geogr. Distrib. Erioc. 6. 1946; Mold., Alph. List Cit. 2: 557 (1948), 3: 975 (1949), and 4: 985. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 65 & 213. 1949; Mold. in Maguire & al., Mem. N. Y. Bot. Gard. 8: 101. 1953; Mold., Phytologia 4: 321. 1953; Mold., Résumé 69, 73, & 492. 1959; Mold., Fifth Summ. 1: 120 & 129 (1971) and 2: 963. 1971; Mold., Phytologia 23: 418. 1972; J. A. Steyer., Biotropica 6: 10. 1974; J. A. Steyer., Act. Bot. Venez. 10: 226 & 232. 1975; Mold., Phytologia 34: 277 (1976), 36: 35 & 65 (1977), 37: 90--92 (1977), and 42: 200--201. 1979; Mold., Phytol. Mem. 2: 111, 443, & 622. 1980; Mold., Phytologia 54: 145 & 235. 1983.

Recent collectors have found this plant growing on savannas and especially in wet areas in savannas, "in sandy areas in low forested region around ponds", and on "campinas sobre pedra de arenito", at 60--65 m. altitude, describing the flowering heads as white. They have found it in flower and fruit in February, March, June, and August. Other descriptions, habitual notes, flowering and fruiting months, etc., have been recorded in Phytologia 37: 91 (1977) and 42: 200--201 (1979), which see.

Material of this taxon has been misidentified and distributed in some herbaria as *Paepalanthus* sp. On the other hand, the Tate 1308, distributed as this var. *glandulosus*, actually is *S. bellus* Mold., while Anderson 10018, Haas, Haas, & Belém 303, Huber 466, Koyama & Agostini 7273, Maguire 33698 & 33699, Maguire, Wurdack, & Bunting 36389, Maguire, Wurdack, & Maguire 14658, Murça Pires 16068, Prance & al. 16185, P.25188, & P.25247, Rosa & al. 894, Steyermark 94182, Steyermark & Redmond 112801a, and Steyermark & Wurdack 21 are typical *S. fertilis* (Körn.) Ruhl., Koyama & Agostini 7351, 7516, & 7528 and Steyermark 57857 are *S. fertilis* var. *fuscus* Mold., and Foldats 3536, Holt & Gehriger 234, Maguire & al. 30985, and Steyermark 75264 are *S. humboldtii* (Kunth) Ruhl.

Additional & emended citations: COLOMBIA: Vaupés: García Barrión & Jaramillo Mejía 17119 in part (W-2569463A), Schultes, Baker, & Cabrera 18230 (Ss, W--2198897), 18534 (Ss, W--2172194). VENEZUELA: Amazonas: J. A. Steyermark 57857 (N, S, W--1901747), 105144 (Ac); Steyermark & Bunting 102661 (Ft); G. H. H. Tate 315 (N--type, W--1498483--isotype). Apure: Davidse & González 12336 (Ld), 13907 (Ld), 14697 (Ld). Bolívar: Cardona 267 (Ve); Hamann 2902 (Hm), 2903 (Hm), 2904 (Hm); Herter & Oberwinkler 16225 (Hu);



*Killip 37355* (Ve); *Schacht s.n.* [Canaima, Januar 1937] (Mu); *Vareschi & Foldats 4576* (Ve--40470); *Vareschi & Magdefrau 6957* (Ve--42506). Guarico: *Tamayo 3998* (W--2195276). State undetermined: *Herb. Nac. Venez s.n.* (Ve). BRAZIL: Goiás: *Hatschbach 40136* (Ld, W--2850781). Mato Grosso: *Cordeiro 31* in part (Ld). Rondônia: *Ribeiro 1103* [Herb. IPEAN 149794] (Ld); *Rosa, Murça Pires, & Rodrigues 891* (N).

*SYNGONANTHUS FERTILIS* var. *HIRTELLUS* Mold., *Phytologia* 52: 19. 1982.

Bibliography: Mold., *Phytologia* 52: 19. 1982.

Collectors describe this plant as having "golden" inflorescence heads and have encountered it in white sand campinas, in flower in June.

Citations: BRAZIL: Amazonas: *Calderón, Monteiro, & Guedes 2590* (Ld, W--2931237), *2748* (Ld--type, W--2931228--isotype, W--2970398--isotype).

*SYNGONANTHUS FERTILIS* var. *HUBERI* Mold., *Phytologia* 47: 17. 1980.

Bibliography: Mold., *Phytologia* 47: 17. 1980; Mold., *Phytol. Mem.* 2: 622 & 627. 1980; Mold., *Phytologia* 50: 245. 1982.

Citations: VENEZUELA: Amazonas: *O. Huber 2349* (Ld--type).

*SYNGONANTHUS FERTILIS* var. *ORINOCENSIS* (Mold.) Mold., *Phytol.*

*Mem.* 2: 443, 622, & 627 hyponym. 1980; comb. nov.

Synonymy: *Syngonanthus humboldtii* var. *orinocensis* Mold. in *Maguire & al.*, *Mem. N. Y. Bot. Gard.* 8: 102. 1953.

Bibliography: Mold. in *Maguire & al.*, *Mem. N. Y. Bot. Gard.* 8: 102. 1953; Mold., *Phytologia* 4: 322. 1953; Mold., *Résumé* 73 & 492. 1959; Mold., *Fifth Summ.* 1: 127 (1971) and 2: 963. 1971; Mold., *Phytologia* 37: 92--93. 1977; 443, 622, & 627. 1980; Mold., *Phytologia* 50: 245. 1982.

Collectors have found this plant growing on savannas and in morichal, on riverbanks, and as "a common annual herb of damp sandy places on savannas", at 120--1300 m. altitude, in both flower and fruit in January and February and in fruit also in November. They have described the inflorescence heads as whitish. *Maguire* and his associates refer to it as "locally abundant".

The collections cited below have previously been confused with and cited as typical *S. fertilis* (Körn.) Ruhl., from which the variety is easily distinguished by its large basal leaves.

Additional & emended citations: VENEZUELA: Amazonas: *O. Huber 2621* (Ve), *3240* (Lc); *Maguire, Wurdack, & Bunting 36389* (N, W--2168974); *Phelps & Hitchcock s.n.* (N). Bolívar: *Agostini 256* (Ld, N, N, Ut--332854B), *348* (Lw, N, N, Ut--3328564B, W--2481636); *B. Maguire 33698* (N); *Steiermark & Wurdack 21* (Mu, N, N, W--2168498, W--2407711).

*SYNGONANTHUS FILIPES* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 35: 453. 1977; Mold., *Phytol. Mem.* 2: 165 & 622. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv.

Silv., Fl. Mont. 1: 323--324, pl. 205. 1928 (Ld, N, W).

*SYNGONANTHUS FISCHERIANUS* (Bong.) Ruhl.

Additional synonymy: *Syngonanthus fischerianum* (Bong.) Ruhl. ex Mold., Phytologia 54: 244 in syn. 1983.

Additional bibliography: Mold., Phytologia 42: 41. 1979; Mold., Phytol. Mem. 2: 165, 402, 425, 428, 443, & 622. 1980; Mold., Phytologia 54: 244. 1983.

Recent collectors have encountered this plant in brejo, in both flower and fruit in January.

The Stawarski collection, cited below, is a mixture with *S. caulescens* (Poir.) Ruhl.

Additional citations: BRAZIL: Paraná: *Hatschbach 43215* (Ld, W--2931978); *Hatschbach, Smith, & Klein 28247* (W--265338); *Kuniyoshi & Kummrow 4604* (Ld); *Stawiarski s.n.* [Herb. Mus. Nac. Rio Jan. 126560] in part (W--2653331). Santa Catarina: *Klein 3612* (N); *Mello Filho 682* [Herb. Mus. Nac. Rio Jan. 49607] (W--2653326); *F. Müller 36* (W--2700820, W--photo); *Reitz & Klein 6104* (W--2268737); *Smith & Klein 8260* (W--2251367), *8536* (W--2251408), *13451* (W--2573031), *13685* (W--2573035), *15476* (W--2653313); *Smith & Reitz 8707* (W--2251429). São Paulo: *Bailey & Bailey 850* (Ba). MOUNTED CLIPPINGS: C. Diogo, Bol. Mus. Nac. Rio Jan. 1: 28--29. 1923 (W).

*SYNGONANTHUS FLAVICEPS* Alv. Silv.

Additional bibliography: Mold., Phytologia 35: 456--457 (1977) and 37: 256. 1977; Mold., Phytol. Mem. 2: 165 & 622. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., Fl. Mont. 1: 328--330, pl. 209. 1928 (Ld, N, W).

*SYNGONANTHUS FLAVIDULUS* (Michx.) Ruhl.

Additional synonymy: *Syngonanthus flavidulus* "(Michx.) Ruhl. in Engl." apud Kral in Godfrey & Wooten, Aquat. Wetl. Pl. Southeast. U. S. 529. 1979.

Additional bibliography: Raf., Autikon Bot., imp. 2, 189. 1943; Raf., Atl. Journ., imp. 2, 1: 121. 1946; Lawrence, Taxon. Vasc. Pl., imp. 1, 405 (1951) and imp. 2, 405. 1971; Hocking, Excerpt. Bot. A.31: 17. 1978; Monteiro-Scanavacca & Mazzoni, Revist. Bras. Bot. 1: [59]. 1978; Kral in Godfrey & Wooten, Aquat. Wetl. Pl. Southeast. U. S. 520, 529, & 530, fig. 307. 1979; Mold., Phytologia 42: 41--42. 1979; Pursh, Fl. Amer. Sept., imp. 2 [ed. Ewan], 92. 1979; J. T. & R. Kartesz, Syn. Checklist Vasc. Fl. 2: 197. 1980; Mold., Phytol. Mem. 2: 16, 18, 20, 24--26, 443, & 623. 1980; Mold., Phytologia 50: 234 (1982) and 52: 111 & 112. 1982; Wunderlin, Guide Vasc. Pl. Cent. Fla. 126. 1982; Mold., Phytologia 53: 320 (1983) and 54: 122. 1983.

Additional illustrations: Lawrence, Taxon. Vasc. Pl., imp. 1, 405 (1951) and imp. 2, 405. 1971; Kral in Godfrey & Wooten, Aquat. Wetl. Pl. Southeast. U. S. 530, fig. 307. 1979.

Wunderlin (1982) describes this species as common in wet pine-lands and at the margins of ponds throughout Florida, flowering there in the spring.

It is of interest to note how Rafinesque (1832, 1840) separated his *Eriocaulon spathaceum* and his *E. flavidulum* var. *cinereum*. For *E. flavidulum* he says merely "New Jersey to Carol." and for its var. *cinereum* Raf. "Florida, Alabama, leaves broadly subulate 2 inches, scape 3 to 4, fl. dark gray, bracts greenish". For *E. spathaceum* Raf. he says "Leaves subulate very short, scape round hardly striate, base spathaceous, spathe bivalve obtuse subequal membranaceous. Capitula spherical white, scales ovate oblong obtuse. -- From Florida, seen in the herbarium of Mr. Halsey without a name. Scape one foot high."

Recent collectors have encountered *Syngonanthus flavidulus* in "moist sandy areas growing sympatrically with *Eriocaulon compressum*", "abundant on low roadsides with *Eriocaulon*", "in sandy peat at the edge of cypress titi", "in sandy soil of open roadsides", "in moist sandy soil at edge of pinelands", "in large clumps in shady wet soil of drying roadside ditches", and "in open woods associated with *Pinus clausa*, *Quercus myrtifolia*, *Q. geminata*, *Polygonella polygama*, and *Ceratiola ericoides*", describing the inflorescence heads as white. They have found it both in flower and fruit in April and May.

Material of *S. flavidulus* has been misidentified and distributed in some herbaria as *Eriocaulon* sp., *E. lineare* Small, and *Lachnocaulon glabrum* K&Rn. On the other hand, the *Perdue* 1765, distributed as *S. flavidulus*, actually is *Lachnocaulon anceps* f. *glabrescens* Mold.

Additional citations: NORTH CAROLINA: Bladen Co.: *Biltmore Herb.* 3162 (W--963199). Brunswick Co.: *Massey & Massey* 3284 (Ne--119181). SOUTH CAROLINA: Lexington Co.: *McGregor* 257 (W--982684). GEORGIA: Berrien Co.: *R. Kral* 24254 (W--2470362). Brantley Co.: *Thorne & Muenscher* 8829 (It). Charlton Co.: *Spury* 607 (W--1467230). Clinch Co.: *R. Kral* 24288 (W--2470348). Cook Co.: *R. Kral* 24238 (Mi). Early Co.: *Thorne* 4963 (It, W--2005955). Effingham Co.: *R. Kral* 24103 (W--2470430). Emanuel Co.: *R. M. Harper* 803 (W--400278). Lanier Co.: *R. Kral* 24265 (W--2470421). Liberty Co.: *R. Kral* 24217 (W--2470353). Miller Co.: *Thorne* 4194 (It). Screven Co.: *R. Kral* 24028 (W--2470413), 24051 (W--2470414). Tift Co.: *Stuckey s.n.* [August 18, 1933] (It). Ware Co.: *F. Kral* 25307 (W--2470405). Wayne Co.: *Kral* 24184 (W-2470377), 24198 (W--2470364). Billy's Island: *Wright & Harper* 126 (It). Chesser Island: *Wright & Harper* 128 (It). Floyd's Island: *Wright & Harper* 127 (It). FLORIDA: Alachua Co.: *S. Knight s.n.* [March '83] (W--310610). Bradford Co.: *M. Cruz* 192 (Ne--112831). Clay Co.: *Carby s.n.* [Hibernia, March 1869] (W--45353, W--45354); *Thomas & Marx* 37863 (Ne--115818). Collier Co.: *West, Arnold, & Cooley s.n.* [15 Apr. 1954] (W--2230994); *Wiegand & Wiegand* 220 (It). Dade Co.: *Garber s.n.* [June 1877] (W--45356). Duval Co.: *Clausen & Trapido* 3290 (It); *Curtiss* 3020 (It, W--82610, W--784521, W--936251), 4140 (W--218359), 4786 (It, W--963198, W--224478); *Fredholm* 5175 (W--717135); *Lighthipe* 452 (W--963194), *s.n.* [April 13, '97] (W--963197). Franklin Co.: *Chapman, Biltmore Herb.* 3162a (W--335154, W--963200); *Vasey s.n.* [1892] (W--45355). Gilchrist Co.: *Correll & Correll* 51693 (N, W--2995560). Highlands Co.:

*Brass* 14609 (W--2065081), 14658 (W--2065105); *Small & DeWinkeler* 9966 (W--1738550); *Stoutmire* 1111 (Mi). Hillsborough Co.: *Garber* s.n. [May 7, 1876] (W--264067); *J. D. Smith* s.n. [March 10, 1880] (W--936254); *Ward & Ward* s.n. [Feb. 27, 1891] (W--152105). Indian River Co.: *MacDaniels* s.n. [April 16, 1936] (It); *Edw. Palmer* 580 (It). Lake Co.: *Nash* 143 (It, W--228002, W--936253, W--963196), 1944 (W--252161, W--309083). Lee Co.: *Francis* 62 (W--1036540); *Perkins* 477 (It); *J. P. Standley* 10 (W--569468), 12544 (W--896015), 12707 (W--896168), 52526 (W--1308733). Leon Co.: *Godfrey* 62901 (W--2433144). Liberty Co.: *Correll, Correll, & Godfrey* 51595 (N); *Solomon* 2114 (W--2978565). Manatee Co.: *Tracy* 6643 (It, W--383900, W--963195). Martin Co.: *Atwood* s.n. [January 23, 1917] (It); *W. F. Buchanan Jr.* s.n. [March 23, 1888] (W--1739324). Nassau Co.: *Godfrey & Lindsey* 56885 (W--2329836). Okeechobee Co.: *Howell* 1041 (W--1220688). Orange Co.: *Blanton* 6491 (W--1485478, W--1601812); *Meislahn* 213 (W--511502). Osceola Co.: *Mearns* s.n. [April 25, 1901] (W--391077); *Schallert* s.n. [5/2/41] (It). Palm Beach Co.: *Abel* s.n. [25 March '72] (Ne--172775); *F. R. Randolph* 17 (It). Pinellas Co.: *Blatchley* 51 (It); *Tracy* 7588 (It, W--442234, W--959572). Polk Co.: *Jennings & Jennings* s.n. [April 1931] (Go); *Topping* 2609 (W--1729089); *Upton, Upton, & Van Deman* s.n. [March 12, 1930] (It). Saint Johns Co.: *J. D. Smith* 358 (W--936256), s.n. [April 14, 1879] (W--936255). Sarasota Co.: *Perkins* 476 (It). Seminole Co.: *Foster, Smith, & Smith, Pl. Exsicc.* Gray. 1334 (It, Mi, W--1923765); *J. P. Young* 1011 (It, W--1102572), s.n. [March 31, 1920] (It). Union Co.: *Beckwith* 583 (W--1200035). Volusia Co.: *Correll & Correll* 51856 (N); *B. Williams* s.n. [5.2.74] (Ne--121756). Walton Co.: *Mohr* s.n. [May 11, 1892] (W--859703). Big Pine Island: *H. N. Moldenke* 940 (W--1184406). County undetermined: *Chapman* s.n. [Florida] (W--45352, W--45354, W--936252, W--961151); *Chickering* s.n. [Maynard] (W--152107); *Curtiss* s.n. [Florida] (W--152106).

ALABAMA: Baldwin Co.: *Haynes* 7528 (N); *Lelong* 5704 (Ne--100260); *Mohr* s.n. [June 1880] (W--152107), s.n. [near the coast] (W--936257), s.n. [June 10, 1880] (W--784519). Mobile Co.: *Mohr* s.n. [June 21, 1893] (W--784520). Washington Co.: *R. Kral* 31198 (Mi).

LOCALITY OF COLLECTION UNDETERMINED: *Herb. Barratt* s.n. (N).

MOUNTED CLIPPINGS & ILLUSTRATIONS: *Kral* in *Godfrey & Wooten, Aquat. Wetl. Pl. Southeast. U. S.* 530, fig. 307. 1979 (Ld); *Raf.*, *Atl. Journ.* 121. 1832 (W).

*SYNGONANTHUS FLAVIPES* Mold.

Additional bibliography: *Mold.*, *Biol. Abstr.* 64: 6581. 1977; *Mold.*, *Phytologia* 36: 60--61. 1977; *Mold.*, *Phytol. Mem.* 2: 11 [ & 623. 1980.

Recent collectors refer to this plant as 40--50 cm. tall, with dry, gray or light-gray inflorescence heads. They have found it "common" or "frequent" on savannas and wet savannas, at 100--120 m. altitude, in both flower and fruit in February and November.

The *Wurdack & Monachino* 39934 distributed and previously cited by me as *S. flavipes*, actually is *S. nitens* (Bong.) Ruhl.

[to be continued]